



1968

## Bulletin of the Massachusetts State College at Bridgewater: Graduate School, 1968-1969 Catalog

Bridgewater State College

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**1968-1969  
CATALOG**

# **The Graduate**



# **School**

**Bulletin of The Massachusetts State College  
at Bridgewater**



## CORRESPONDENCE

The general address for all correspondence is: State College at Bridgewater, Bridgewater, Massachusetts 02324. In order to avoid delay, correspondents are requested to note the following directions.

Requests for Day Session catalogues (undergraduate) should be addressed to the Registrar. Requests for catalogues of the Graduate School should be sent to the Office of the Graduate School. Requests for brochures of the Division of Continuing Studies should be addressed to the Office of the Division of Continuing Studies.

Inquiries concerning requirements for concentrations and majors in a given department should be addressed to the chairman of that department.

Requests for transcripts should be sent as follows:

Students who hold a bachelor's and/or a master's degree from this college should write to the Registrar.

Students who have not completed their bachelor's degree should write to the Registrar for a transcript of courses taken through the Day Session, and to the Director of Continuing Studies for a transcript of courses taken through the Division of Continuing Studies.

Students who have earned their baccalaureate but who have not completed their master's degree, should write to the Director of Continuing Studies for a transcript of courses taken in the Division of Continuing Studies and to the Registrar for transcripts of courses taken in the Day Session.

Inquiries concerning employment, health services, housing, loans, and scholarships, should be addressed to the Director of Student Personnel.

Inquiries concerning the Summer Session at Bridgewater State College should be addressed to the Director of the Summer Session.

Inquiries concerning the Summer Session at Hyannis should be addressed to the Director of the Hyannis Summer Session.

Inquiries relative to admission to the Graduate School should be addressed to the Dean of the Graduate School.

Inquiries concerning placement and student teaching should be addressed to the Director of Teacher Education and Placement.

Inquiries concerning Continuing Studies should be addressed to the Director of Continuing Studies.

Inquiries concerning alumni affairs should be addressed to the Executive Secretary of the Alumni Association.

Inquiries concerning academic employment should be addressed to the chairman of the appropriate department.

Inquiries concerning non-academic employment should be addressed to the Assistant to the President.

Inquiries concerning teacher certification should be addressed to the Director of Teacher Certification, Department of Education, 182 Tremont Street, Boston, Massachusetts.

Matters not covered above, and correspondence bearing upon the general interests of the College, should be addressed to the President.

BULLETIN OF THE MASSACHUSETTS STATE COLLEGE  
AT  
BRIDGEWATER  
FOUNDED IN 1840



GRADUATE SCHOOL

The Commonwealth of Massachusetts  
DIVISION OF STATE COLLEGES



## Index to College Buildings (Vertical Numbers)

- |  |  |
|--|--|
| <ol style="list-style-type: none"> <li>1. Boyden Hall (Administration Building)</li> <li>1a. Horace Mann Auditorium, Entrance at right of Boyden Hall main entrance.</li> <li>2. Gates House (President's Home)</li> <li>3. Former Christian Fellowship Center, now located at 4 Standish Road</li> <li>4. Tillinghast Hall (Dining Hall and Women's Dormitory)</li> <li>5. Clement C. Maxwell Library</li> <li>6. S. Elizabeth Pope Hall (Women's Dormitory)</li> <li>7. Site of Student Union</li> <li>8. Marshall Conant Science Building</li> <li>8a. Science Lecture Hall - Access via first floor of Science Building</li> </ol> | <ol style="list-style-type: none"> <li>9. Stevens Greenhouse</li> <li>10. Steam Heating Plant</li> <li>11. John J. Kelly Gymnasium</li> <li>12. Swimming Pool</li> <li>13. Catholic Center and Chapel</li> <li>14. Men's Dormitory</li> <li>15. Woodward Hall (Women's Dormitory)</li> <li>16. Campus Police Headquarters</li> <li>17. Maintenance Building</li> <li>18. Martha Burnell Training School</li> <li>19. Great Hill Dormitory</li> </ol> |
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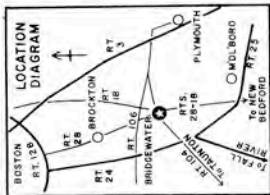
## Index to Parking Lots (Slanted Numbers)

1. Boyden Hall Lot - Faculty Only
2. Science Building Lot - Faculty Only. Access via Gymnasium Lot
3. Gymnasium Student Lot - Juniors and Seniors Only
4. Dormitory Student Lot - Dormitory Residents Only
5. Burnell Lot - Faculty Only
6. Great Hill Lot - Freshman and Sophomores Only

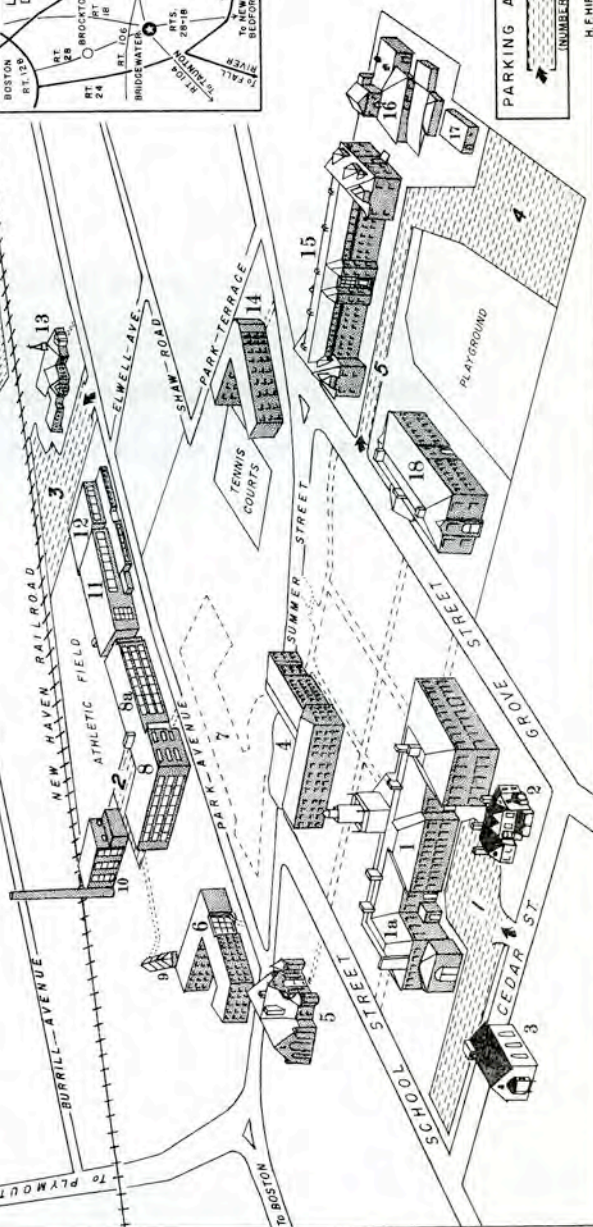
# STATE COLLEGE BRIDGEWATER MASSACHUSETTS



ATHLETIC FIELDS



H. F. HIRT, 1967



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# CALENDAR

## DAY SESSION

Calendars for the fall and spring terms are obtainable at the Office of the Graduate School, Room 211, Conant Science Building. Graduate students registering for courses in the Day Session, during the spring and fall terms, should obtain this calendar.

## DIVISION OF CONTINUING STUDIES

A new Bulletin is prepared each term (fall, spring, and summer) and is obtainable at the Office of the Division of Continuing Studies, Boyden Hall. Graduate students registering for courses offered by the Division during the fall, spring, and summer terms, should obtain this calendar.

## GRADUATE SCHOOL

The following calendar lists important dates not included in the above calendars. All graduate students should note critical dates.

### CALENDAR 1968 - 1969

#### FALL TERM

1968 - 1969

Dates are inclusive

7 October	Last date for filing <i>Request to take the Comprehensive Examination</i> in November
26 October	Graduate Record Examination (Lecture Hall, Conant Science Building from 8:45 A.M. to 11:45 A.M.)
1 - 30 November	Comprehensive Examinations for students under the 1966 and 1967 regulations (Applicants for these examinations will be notified by mail as to the time and place of their examinations.)
16 November	Comprehensive Examinations for students under the 1963 and 1965 regulations (Lecture Hall, Conant Science Building from 9:00 A.M. to 12:00 A.M.)
2 December	Last day for receiving completed application for January admission to the Graduate School
14 December	Graduate Record Examination (Lecture Hall, Conant Science Building from 8:45 A.M. to 11:45 A.M.)



SPRING TERM  
1969

Dates are inclusive

6 January	Last day for filing <i>Application for Degree</i> for students who expect to receive the diploma in February
3 March	Last day for filing <i>Request to take the Comprehensive Examination in April</i>
1 April	Last day for filing <i>Application for Degree</i> for June Commencement
1 - 30 April	Comprehensive Examinations for students under the 1966 and 1967 regulations (Applicants for these examinations will be notified by mail as to the time and place of their examinations.)
12 April	Comprehensive Examinations for students under the 1963 and 1965 regulations (Lecture Hall, Conant Science Building from 9:00 A.M. to 12:00 A.M.)
1 May	Last day for receiving completed application for June admission to the Graduate School
8 June	Commencement
20 June	Last day for filing <i>Request to take the Comprehensive Examination in July</i>

SUMMER TERM  
1969

Dates are inclusive

8 July	Last day for filing <i>Application for Degree</i> for students who expect to receive the diploma in August
12 July	Graduate Record Examination (Lecture Hall, Conant Science Building from 8:45 A.M. to 11:45 A.M.)
1 - 31 July	Comprehensive Examinations for students under the 1966 and 1967 regulations (Applicants for these examinations will be notified by mail as to the time and place of their examinations.)
19 July	Comprehensive Examinations for students under the 1963 and 1965 regulations (Lecture Hall, Conant Science Building from 9:00 A.M. to 12:00 A.M.)

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- Achille Adrien Joyal, A.B. (St. Mary's University), M.A. (New York University), Assistant Professor of Philosophy
- Kenneth Paul Jubett, B.S. (Boston University), M.Ed. (Massachusetts State College at Bridgewater), Visiting Lecturer in Special Education
- Wayne Maurice Judah, A.B., M.A., Ph.D. (Indiana University), Associate Professor of Modern Foreign Languages
- Donald Lundeen Keay, B.S. (Massachusetts State College at Bridgewater), M.A.T. (Harvard University), Assistant Professor of History
- Grace Doris Keenan, B.S., M.Ed. (Massachusetts State College at Bridgewater), Visiting Lecturer in Special Education
- Paul Francis Kelley, B.S., Ed.M. (Massachusetts State College at Bridgewater), Associate Professor of Education
- Archibald Kelly, B.S. (American International College), M.A. (Boston College), Visiting Lecturer in the Teaching of Mathematics
- John Bernard Kelly, B.S. (Holy Cross) M.Ed., (Boston College), Visiting Lecturer in Reading
- William Kendall, B.S. (University of Minnesota), M.S., M.F.A., (University of Wisconsin), Instructor in Art
- John Joseph Kent, B.S., M.Ed., (Massachusetts State College at Bridgewater), Assistant Professor of Education
- Isabelle Bragg King, B.S., M.Ed. (Massachusetts State College at Bridgewater), Assistant Professor of Education
- Thomas Allen Knudson, B.S. (Wisconsin State College at LaCrosse), M.S. (Springfield College), Assistant Professor of Physical Education for Men
- Shirley Jane Krasinski, B.S. (University of Connecticut), M.S. (University of Massachusetts), Instructor in Physical Education for Women
- Joseph Kunces, A.B. (University of Massachusetts), M.Ed. (Harvard University), Ph.D. (University of Connecticut), Visiting Lecturer in Educational Philosophy
- Frank Joseph Lambiase, A.B. (Stonehill College), M.S. (Clarkson College of Technology), Instructor in Mathematics
- Robert Leo Lavoie, B.S. (Boston University), M.B.A. (Harvard University), Visiting Lecturer in Education



Olive Lee, A.B. (Radcliffe College), B.S. (University of North Carolina), Instructor in Library Science

Thomas Lee, B.S. (Massachusetts State College at Bridgewater), M.S. (Syracuse University), Assistant Professor of Instructional Media

Harry August Lehmann, B.S., Ed.M. (Springfield College), Associate Professor of Physical Education and Chairman of the Department of Health and Physical Education for Men

Joan Sawyer Leland, B.S. (Massachusetts State College at Bridgewater), M.S. in L.S. (Simmons College), Visiting Lecturer in Library Science

Robert Elwood Lemos, B.S. (Massachusetts State College at Bridgewater), Ed.M. (Harvard University), Associate Professor of Mathematics

George Knowlton Lewis, B.A., M.A., Ph.D. (Harvard University), Visiting Lecturer in Geography

Jacob Liberles, B.S. (Massachusetts State College at Lowell), M.A. (Bennington College), Instructor in Music

Evelyn Ruth Lindquist, B.S. (Massachusetts State College at Bridgewater), Ed.M. (Boston University), Associate Professor of Education

Katherine Frances Lomax, A.B. (Brown University), M.A.T. (Boston College), Assistant Professor of English

Iva Voila Lutz, B.S., A.M. (Columbia University), Professor of Psychology

Edward Joseph Lynch, A.B. (Providence College), M.Ed. (Massachusetts State College at Bridgewater), C.A.G.S. (Boston University), Visiting Lecturer in Guidance

Robert Douglas MacCurdy, B.S. (University of Massachusetts), M.S. (Michigan State University), Ed.D. (Boston University), Professor of Education

Agrippina Anne Macewicz, B.S. (Massachusetts State College at Worcester), M.A., Ph.D. (Clark University), Professor of Geography

Emanuel Maier, B.A., M.S. (City College of New York), Ph.D. (Clark University), Professor of Geography and Chairman of the Department of Earth Sciences

- Henry Myron Mailloux, B.S. (Fordham University), M.A. (Columbia University), Associate Professor of Mathematics
- Michael Makokian, B.A. (Rhode Island College), M.A. (Rutgers University), Assistant Professor of Mathematics
- Charles Manos, B.S., M.Ed. (Keene Teachers College), Visiting Lecturer in Education
- Marion Jane Manthorne, B.A. (Bryn Mawr), M.S. in L.S. (Simmons College), Visiting Lecturer in Library Science
- Vahé Mardiros Marganian, B.S. (San Francisco State College), M.S., Ph.D. (Clemson University), Assistant Professor of Chemistry
- Mary Leota Marks, Diploma (Wheelock Normal School), Instructor in Education
- Peter Mazzaferro, B.A. (Centre College), M.Ed. (Springfield College), Instructor in Physical Education for Men
- Owen Thomas McGowan, A.B. (Maryknoll College), M.S. in L.S. (Catholic University), Librarian
- Bernard James McKearney, B.S., M.A. (University of Wisconsin), Ph.D. (University of Connecticut), Visiting Lecturer in Educational Philosophy
- Francis Ronald McLellan, B.S. (Boston College), M.F.A. (Boston University), Instructor in English
- Annabelle McConnell Melville, A.B., M.A. (Albany State College for Teachers), Ph.D. (The Catholic University of America), Commonwealth Professor of History
- Trueman John Menadue, B.S. (St. Lawrence University), M.Ed. (Boston University), Visiting Lecturer in Education
- Lawrence Bronislaw Mish, A.B., (University of Connecticut), A.M., Ph.D. (Harvard University), Professor of Botany
- Joseph Graessle Moore, B.A. (Hamline University), B.D. (Seabury-Western College), M.A., Ph.D. (Northwestern University), Professor of Anthropology
- Mary Josephine Moriarty, A.B. (Villa Maria College), B.S., Ed.M., Ed.D. (Boston University), Professor of Physical Education for Women and Chairman of the Department of Health and Physical Education for Women

- Walter Arthur Morin, A.B. (Merrimack College), M.S. (Boston College), Ph.D. (Clark University), Associate Professor of Biology
- John Fordyce Myers, A.B. (Bates College), A.M. (Boston University), Assistant Professor of History
- Rita Kohler Nadal, B.S. (Massachusetts State College at Framingham), Ed.M. (Boston University), Associate Professor of Education
- James Keron Nerney, A.B. (University of Notre Dame), M.A. (Boston College), Assistant Professor of English
- Leonel Joseph Neron, B.S., B.A. (Boston College), M.Ed. (State College at Bridgewater), Visiting Lecturer in Educational Psychology
- Mary Noel, A.B. (Radcliffe College), M.A., Ph.D. (Columbia University), Associate Professor of History
- Daniel Joseph Noonan, A.B. (Boston College), Ed.M. (Harvard University), Associate Professor of Economics and Chairman of the Department of Economics
- Adeline Dupuy Oakley, B.S. (Massachusetts State College at Bridgewater), M.S.L. (Simmons College), Instructor in Library Science
- Robert O'Donnell, A.B., M.Ed., C.A.G.S. (Boston University), Visiting Lecturer in Education
- Arthur Carlisle Oien, B.A. (Concordia College), M.A. (University of Minnesota), Assistant Professor of History
- Vernon Eugene Oldham, A.B. (Boston University), M.A. (Columbia University), Visiting Lecturer in Guidance
- Philip Olmer, A.B. (Northeastern University), M.A., Ph.D. (Boston University), Visiting Lecturer in Sociology
- Lenore Marie Padula, B.A. (Emmanuel College), M.A. (Boston College), Instructor in Modern Foreign Languages
- Joseph Michael Pagano, B.S. (Massachusetts Institute of Technology), M.S. (Boston College), Assistant Professor of Chemistry
- Felix Stanley Palubinskas, S.B. (Massachusetts Institute of Technology), A.M.T. (Harvard University), Ph.D. (Iowa State University), M.D. (Tufts University), Professor of Physics



- Patricia Ann Phillips, B.S. (Massachusetts State College at Bridgewater), Ed.M. (Boston University), Assistant Professor of Physical Education for Women
- Wayne Richard Phillips, B.S. (Massachusetts State College at Bridgewater), M.A. (University of Connecticut), Instructor in Education
- Mercia Carter Pike, B.S., M.Ed. (Massachusetts State College at Bridgewater), Associate Professor of Education and Director of Teacher Education and Placement
- Willis Norman Pitts, A.B. (Talladega College), M.A., Ph.D. (University of Michigan), Associate Professor of Speech and Drama
- Joseph Francis Plouffe, B.S. (Massachusetts State College at Bridgewater), M.Ed. (Boston University), Visiting Lecturer in Guidance
- Francis Patrick Powers, A.B. (Maryknoll College), M.Ed., Ed.D. (Boston College), Visiting Lecturer in Educational Psychology
- Robert Prendergast, B.S., M.Ed. (Boston University), Visiting Lecturer in Guidance
- William Quinlan, A.B. (Providence College), M.Ed. (Massachusetts State College at Bridgewater), Visiting Lecturer in Guidance
- John Gammons Read, B.S. (University of Massachusetts), M.A. (Brown University), D.Ed. (Boston University), Visiting Lecturer in Education
- Douglas Lee Reed, B.S. (Indiana University), M.B.A. (Texas Technological College), Assistant Professor of Economics
- Christiana Pollak Reordan, B.S. (Oberlyzeum College, Germany), M.A. (Fordham University), Instructor in Modern Foreign Languages
- Harold Guy Ridlon, A.B. (Tufts University), M.A., Ph.D. (Harvard University), Professor of English, Chairman of the Department of English, and Director of the Division of the Humanities
- Adrian Rondileau, A.B. (The City University of New York), M.A., Ph.D. (Columbia University), President
- Henry Rosen, A.B. (Dartmouth College), A.M., Ed.D. (Boston University), Professor of Instructional Media and Chairman of the Department of Instructional Media

- Maurice Rotstein, B.S. (City College of New York), M.A., Ph.D. (New York University), Associate Professor of History
- Marjorie Atwood Rugen, B.S. (Boston University), M.A. (New York University), Instructor in Physical Education for Women
- Louis Schippers, A.B. (Phillips University), B.D. (Texas Christian University), Assistant Professor of Psychology
- Daryl Jane Schoenknecht, B.A. (University of Vermont), M.A. (Columbia University), Instructor in English
- Hazel LaRochelle Schopp, B.S. (Massachusetts State College at Hyanis), M.Ed. (Massachusetts State College at Bridgewater), Instructor in Physical Education for Women
- James Rudolph Scroggs, A.B. (Northeastern University), B.D. (Harvard Divinity School), Ph.D. (Boston University), Assistant Professor of Psychology
- Mary Cingolani Shapiro, B.S. (Massachusetts State College at Bridgewater), M.A. (De Paul University), Assistant Professor of Modern Foreign Languages
- John Marshall Shaw, B.S., M.Ed. (Boston University), Visiting Lecturer in Education
- Samuel Norman Sheinfeld, A.B., A.M. (Harvard University), Ed.M. (Massachusetts State College at Boston), Ed.D. (Harvard University), Professor of English
- Robert Joseph Silbernagel, B.A., M.A. (Boston College), Instructor in English
- Philip Thomas Silvia, Jr., B.A. (Providence College), M.A. (Fordham University), Instructor in History
- Peter Simoglou, B.A. (Harvard University), M.S. in L.S. (Simmons College), Visiting Lecturer in Library Science
- Donald Clayton Simpson, B.Ed. (Keene Teachers College), M.S. (Clarkson College of Technology), M.A. (Rutgers State University), Assistant Professor of Mathematics
- Johanne Smith, B.S. (East Stroudsburg State College), M.S. (University of Illinois), Instructor in Physical Education for Women
- Roderick William Smith, A.B. (Suffolk University), M.Ed. (Boston University), Visiting Lecturer in Educational Measurement



- Leonard Solomon, B.A. (City College of New York), M.A. (Cornell University), Visiting Lecturer in Astronomy
- Margaret Borden Souza, B.S. (Massachusetts State College at Bridgewater), M.S. (Boston College), Associate Professor of Chemistry
- Benjamin Arthur Spence, B.S. (Massachusetts State College at Bridgewater), M.A. (University of Wisconsin), Assistant Professor of History
- Lindley Powers Spencer, B.A. (Smith College), M.A., M.F.A., Ph.D. (University of Wisconsin), Assistant Professor of Speech and Drama
- Doris Margaret Sprague, B.S., Ed.M. (Massachusetts State College at Bridgewater), Associate Professor of Education and Principal of the Burnell School
- Edward Carl Swenson, B.S. (Boston College), Ed.M. (Boston University), Associate Professor of Physical Education for Men
- Doris Emma Tebbetts, B.S. (Massachusetts College of Art), M.A. (University of Minnesota), Associate Professor of Art and Chairman of the Department of Art
- Abraham Vazhayil Thomas, M.A. (University of Madras, India), Instructor in Sociology
- Mary Lou Thornburg, B.S. (Wisconsin State University at Lacrosse), M.S. (University of North Carolina at Greensboro), Ph.D. (University of Iowa), Associate Professor of Physical Education for Women
- Elizabeth Ann Tormey, B.S. (Massachusetts State College at Bridgewater), M.Ed. (Boston College), Visiting Lecturer in Reading
- Cora May Vining, B.S. (Massachusetts State College at Bridgewater), B.S. (Simmons College), A.M. (Boston University), Associate Professor of Library Science
- Claire Mary Walker, B.S. (Massachusetts State College at Bridgewater), M.S.Ed. (Northeastern University), Instructor in Education
- William James Wall, Jr., B.S., M.S. (University of Massachusetts), Ph.D. (University of California), Professor of Zoology
- Richard Jonathan Warye, B.Ed., M.A., Ph.D. (Ohio State University), Assistant Professor of Speech and Drama



- Tom Gene Watson, B.A. (Baptist University), M.A. (University of Arkansas), Assistant Professor of English
- George Alexander Weygand, B.S., Ed.M. (Massachusetts State College at Bridgewater), Ed.D. (Harvard University), Professor of Physics
- Alfred Young Wolff, Jr., A.B. (William and Mary College), M.A. (University of Virginia), Instructor in History
- Carol Ann Wolfgram, B.S. (Wisconsin State College), M.A. (Colorado State College), Instructor in Physical Education for Women
- Dorothy Sherman Wood, B.S. (Massachusetts State College at Bridgewater), M.Ed. (Boston University), Associate Professor of Education
- Shirley Ann Wood, B.S., Ed.M. (Massachusetts State College at Bridgewater), Assistant Professor of Art
- Vincent James Worden, B.S. (Massachusetts State College at Worcester), Ed.M. (Loyola College), Assistant Professor of Education
- Richard Yin, B.A. (Chengchi University, Taiwan), M.A. (Brigham Young University), Instructor in Political Science
- Joseph Bernard Yokelson, B.A. (Brooklyn College), M.A., Ph.D. (Brown University), Assistant Professor of English
- Raymond John ZuWallack, B.A. (University of Connecticut), M.S. (Southern Connecticut State College), Instructor in Education

#### ADDENDA

- Bradley Sherwood Bowden, B.S. (University of Massachusetts), Ph.D. (University of Connecticut), Assistant Professor of Biology
- Mary Elizabeth Ellis, B.S. (Skidmore College), M.M. (New England Conservatory of Music), Instructor in Music
- John William Heller, B.F.A., M.F.A. (Pratt Institute), Instructor in Art
- Charles McGinnis, A.B. (Tufts University), M.A. (Boston College), Ph.D. (Columbia University), Associate Professor of English
- Marvin Schwalb, B.A. (State University of New York at Buffalo), Ph.D. (State University of New York at Buffalo), Assistant Professor of Biology
- Robert Francis Sutherland, A.B. (Stonehill College), M.S. (University of Missouri at Kansas City), Instructor in Mathematics
- Gerald Joseph Thornell, B.A. (Curry College), M.S. (Central Connecticut College), Instructor in Education

## GENERAL INFORMATION

The State College at Bridgewater shares the national tradition of providing high quality education supported in large part by the State. Serving qualified students throughout the Commonwealth and particularly those living in the southeastern area, this college is committed to encouraging the broad educational preparation which is equally essential for making a maximum contribution to profession, community, and nation, and for developing a sound personal life. While maintaining its historical concern for preparing teachers, Bridgewater also dedicates itself to the education of students who may be interested in other vocations and professions.

Bridgewater strives to provide an atmosphere of integrity, justice, and social concern and to develop within the student a self discipline which will be evident beyond the classroom. In addition to stimulating his intellectual curiosity, Bridgewater State College also provides the student with the opportunity to understand and appreciate the major contributions to man's knowledge of himself and of the physical and social world in which he lives.

The College is located in the town of Bridgewater, a pleasant, residential community located three miles from an expressway leading to major highways to New York, Boston, and Cape Cod. Motoring time to Boston is approximately 45 minutes; to New York, four and one-half hours; and to Cape Cod, one hour. Bus service to Boston is available.

### ACADEMIC STANDING OF THE COLLEGE

The College is accredited by the National Council for Accreditation of Teacher Education and holds membership in the New England Association of Colleges and Secondary Schools.

### ADMINISTRATIVE ORGANIZATION OF PROGRAMS

The College conducts a day session for full-time undergraduates who have been matriculated for the degree of Bachelor of Arts, or for the degree of Bachelor of Science in Education, as well as afternoon and evening programs for full and part-time undergraduate and graduate students. The latter programs are for students who wish to take courses for self improvement or certification, or for those who have been matriculated for one of the following degrees: Bachelor of Arts, Bachelor of Science in Education, or Master of Education.

Information relative to undergraduate degree programs is obtained from the Dean of Undergraduate Studies.

Information relative to graduate degree programs is obtained from the Dean of the Graduate School.



All courses offered afternoons, evenings, and Saturday mornings are scheduled through the Division of Continuing Studies. Information and guidance relative to degree programs are not given through this Division.

## ACADEMIC FACILITIES

Boyden Hall is located on the upper campus, between School and Grove Streets. Named for Albert Gardner Boyden, the third principal of Bridgewater State Normal School and Arthur Clark Boyden, the first President of Bridgewater State Teachers College, it contains administrative and business offices, the Horace Mann Auditorium, classrooms, and offices for faculty members.

Burnell School, named after its second Principal, Martha Mae Burnell, is located on Grove Street, west of Boyden Hall. The school conducts classes from kindergarten through grade four. Students who are matriculated for the degree of Bachelor of Science in Education spend eight weeks observing and teaching classes at the Burnell School.

Conant Science Building is located on Park Avenue, on the lower campus. It is named for Marshall Conant, the second Principal of Bridgewater State Normal School, who was instrumental in expanding the scientific studies of this institution. The building contains the Departments of Biological Sciences, Chemistry, Earth Sciences and Geography, Mathematics, Physics and Instructional Media.

Kelly Gymnasium is located on Park Avenue, on the lower campus. Named for Dr. John Joseph Kelly, who served as the third President of the College, it contains two gymnasias, an Olympic pool and other facilities for The Departments of Physical Education for Men and Women.

Maxwell Library is located east of Boyden Hall on School Street. The library was named for Dr. Clement Carpenter Maxwell, the fourth President of the College. The building which serves as a temporary library, pending construction of a new one, consists of a lower floor, containing the stacks and library offices; the main reading room; the Julia Carter room used for meetings; an upper floor, consisting of two classrooms for courses in library science; and a mezzanine containing student carrels. The library contains 50,000 volumes, 530 journals, 2500 pamphlets, and 16 newspapers.

Stevens Greenhouse and Boyden Botanical Gardens are located on Park Avenue, on the lower campus between Pope Hall and the Conant Science building. The facilities, which are managed by a horticulturist, are used by the Department of Biological Sciences for instruction and research.



## STUDENT HOUSING

At present, dormitory housing is not available for graduate students but there are a number of approved off-campus houses available for students who wish to pursue a full-time graduate program. A list of available housing may be obtained by writing the Dean of Students.

## SCHOLARSHIPS AND FELLOWSHIPS

There are, at present, no scholarships or fellowships for graduate students.

## NATIONAL DEFENSE STUDENT LOANS

### Eligibility

Matriculated graduate students, taking at least six semester hours of work per semester, are eligible to apply for N.D.S.L.

Students applying for such loans must present a letter to the Financial Aid Officer from the Dean of the Graduate School, attesting to their matriculated status; and proof of registration for the required number of hours, from the Director of Continuing Studies or Academic Dean's Office.

Applications must be submitted prior to March 15th for the summer session and July 1st for the fall and spring terms.

### Loan Amounts

Graduate students (with matriculated status) may borrow up to a maximum of two thousand, five-hundred (\$2,500.00) per year; the total amount borrowed for all degree programs, both undergraduate and graduate, may not exceed ten thousand dollars (\$10,000.00).

The repayment period and interest begin nine months after a student has completed his program. Total payment is due 10 years and nine months after a student has completed his degree program.

### Interest Rate

Interest is at the rate of three percent (3%) per year on the unpaid balance.

### Special Compensation for Teachers

As much as one-half of the loan may be forgiven if the borrower becomes a full-time teacher at any level. The amount of forgiveness is ten percent (10%) of the amount borrowed for each year of teaching, up to a maximum of five years.

If the borrower teaches in eligible schools in low-income areas, the rate of forgiveness may be fifteen percent (15%) per year.

## Deferment of Repayment

Repayments may be deferred up to three years if the borrower is serving in the Armed Forces, the Peace Corps, or Vista.

## COUNSELING

Students may have problems and needs that require special forms of help or guidance. Among these are questions and concerns about their educational programs and academic achievement, housing, finances, health, social adjustment, part-time work, and placement.

To assist students in making adjustments, intelligent plans and wise decisions, the College has provided professional staff services in the major areas of student needs.

### General

The faculty-student relationship is the center of college counseling, for faculty are best qualified to guide the student in his academic and professional growth. Each graduate student works closely with a faculty advisor from whom he receives help and guidance in the pursuit of his graduate program. Additional guidance by a professional counselor may be arranged through the office of the Dean of Students.

### Religious

From its beginning, the State College at Bridgewater has been committed to a positive appreciation for the religious values in both our past history and contemporary culture. To emphasize the affirmative role of religion in the life and thought of this academic community, the Christian Fellowship, Menorah Club, and Newman Club have been formed to minister to those of the Protestant, Jewish, and Catholic faiths. A Christian Fellowship House and a Catholic Chapel and Center are located near the campus. Chaplains for Catholic and Protestant students have offices on campus and meet frequently with students for individual conferences, and with groups to provide religious counseling services.

## HEALTH SERVICES

A hospital suite is located on the first floor of the S. Elizabeth Pope Hall (Tel. 697-6403). The services of a day and a night nurse are available to all students of the college. A doctor is on duty three days a week for four hours each day. The schedule of the medical staff is as follows:

Day Nurse	8:00 a.m. - 4:00 p.m.
Night Nurse	11:00 p.m. - 7:00 a.m.
College Physician	Mon., Wed., Fri. - 8:00 a.m. - 12:00 noon



## STUDENT COOPERATIVE BOOKSTORE

The Student Cooperative Bookstore is located in the basement of Boyden Hall. The store has a drug and cosmetic rack, as well as supplies, souvenirs, textbooks, and leisure reading material. It offers a generous discount on most items.

The Bookstore is open from 8:15 A.M. to 4:00 P.M., Monday through Friday of each week during the fall and spring terms.

For the convenience of the Program of Continuing Studies students, the Bookstore will also be open whenever classes are being held during the fall, spring, and summer terms.

Books may be paid for by cash or check. All checks should be made payable to: Student Cooperative Bookstore, with the payee's home address appearing on the check. The store does not handle used books. Books may be returned to the store for the following reasons only:

- 1) Book is defective.
- 2) Course is dropped or cancelled before the third meeting of class (certified by the Director of Continuing Studies).

Returned books must be unmarked, in saleable condition, and accompanied by Bookstore sales receipt.

## CHANGE OF NAME AND/OR ADDRESS

Students should notify the Office of the Graduate School immediately, by using the appropriate form, of any change in name or address. Failure to do this may cause unfortunate complications and delays which inconvenience students. Forms are available at the Office of the Graduate School.

## MOTOR VEHICLE REGULATIONS

Students should secure a copy of the Division of Traffic Control's rules and regulations governing the use of motor vehicles. This may be obtained at the time of registration.

## SELECTIVE SERVICE

The following is a statement by General Hershey, "Under advice received today from National Security Council with respect to occupational deferments, the lists of essential activities and critical occupations are suspended, leaving each local board with discretion to grant, in individual cases occupational deferments based on a showing of essential community need. With respect to graduate school deferments, The National Security Council advises that it is not essential for the maintenance of the national health, safety and interest to provide student deferments for graduate study in fields other than medicine, dentistry and allied medical specialties: ex-



cept that this recommendation does not affect existing regulations governing deferment for graduate students who entered their second or subsequent year of graduate study in the fall of 1967. It does affect students graduating from college this year, as well as those who entered the first year of graduate school last fall.

The sequence of selection in filling calls will remain unchanged. A change in the order of call is not justified at this time. Fairness and equity to all men in the eligible age groups, as well as the interest of the nation, require that this long standing practice be maintained. Full text of the memorandum of advice from The National Security Council will be forwarded to you promptly. I concur in the recommendations made by The Council.

“Hershey”

#### TEACHER CERTIFICATION

Teacher certification is the responsibility of the State Department of Education. All inquiries relative to certification should be addressed to the Director of the Division of Certification, State Department of Education, 182 Tremont Street, Boston, Massachusetts.

#### OTHER COLLEGE POLICIES

Information or additional information concerning such matters as smoking, bulletin boards, vending machines, messages and library should be obtained at the time of registration.



IMPORTANT INFORMATION \*

THE FOLLOWING SHOULD BE READ BY ALL WHO ARE INTERESTED IN EARNING A MASTER'S DEGREE AT BRIDGEWATER STATE COLLEGE.

GENERAL: Persons interested in working toward a master's degree should obtain a current copy of the Graduate School Catalogue. This Catalogue is published in August of each year and may be obtained at the Office of the Graduate School.

When an applicant has been accepted as a graduate student, his name is placed on a mailing list to receive the annual Catalogue. If a graduate student does not receive a Catalogue by September 1, he should notify the Graduate School Office.

Students are responsible for all information given in the latest edition of the Catalogue and also for any notices posted on the bulletin boards of the Graduate School and the Division of Continuing Studies.

Graduate students follow those regulations which were in effect at the time of their acceptance. They may, however, be required to meet any additional standards, which the College established to conform with current graduate school practice. Such changes will be published in the Catalogue and/or posted on the bulletin boards of both the Graduate School and the Division of Continuing Studies. Failure to acquaint oneself fully with the current regulations, may cause unfortunate complications for which the student must accept full responsibility.

DEADLINES: Students are reminded to consult the annual Calendar of the Graduate School (which is to be found in the Graduate School Catalogue) for deadlines and dates relative to admission, Graduate Record Examinations, Comprehensive Examinations, and filing applications for degrees.

APPLICATION, ADMISSION AND MATRICULATION: Applicants should specify the degree program (and also the area of concentration for those interested in Secondary Education) when they request application forms. The Graduate School cannot send the appropriate application forms without this information.

Applications will not be acted upon unless they are complete. A complete application consists of the following: 1. Application for Admission to the Program leading to the Degree of Master of Education; 2. Graduate Record Examination scores; 3. Transcripts; 4. (Two) Letters of Recommendation; 5. Petition for Acceptance of Degree Prerequisites for the Degree of Master of Education (if applicable); 6. Petition for Acceptance of Graduate Courses Taken Prior to Acceptance (if applicable)

If an applicant is admitted to the Graduate School, he will receive written notice of this and be given the name of his adviser. At the same time, the applicant will be apprised of any degree prerequisites he must fulfill and of any prerequisites and graduate courses taken prior to matriculation (a maximum of six semester hours of approved graduate work) which have been accepted.

All persons admitted to the Graduate School prior to January 1, 1969 are classified as matriculated students.



Those who are admitted to the Graduate School after January 1, 1969 will receive information relative to the requirements to achieve matriculated status. In brief - Applicants may be accepted before completing all degree prerequisites. Students will be matriculated for the degree when they have met all degree prerequisites (with the exception of student teaching), earned at least six semester hours of approved graduate credit (prior to or subsequent to acceptance), with a grade of B or better, and are recommended by their adviser and department.

REFERENCES: Obtaining references by the deadlines indicated in the Calendar of the Graduate School is a student responsibility. Those applicants who have not taken courses for a number of years, and who anticipate some difficulty in locating their former professors, may find it helpful to send a list of these professors to the registrar of the appropriate college or university, with a request for their present addresses.

TRANSCRIPTS AND GRADUATE RECORD EXAMINATION SCORES: Transcripts of all courses taken at the collegiate level must be submitted at the time of application. A transcript from each college or university at which the applicant earned college credit must be sent. No credit will be given for any course (graduate or undergraduate prerequisite) unless an official transcript is sent to the Graduate School Office. It should be emphasized that the Graduate School will not accept transcripts or Graduate Record Examination scores sent by students. Please consult the Catalogue on this point.

CONFERENCES (ELECTIVES): It is the student's obligation to make an appointment to see his adviser as soon as possible after acceptance. At this conference, the student's program should be planned and approximately twice as many electives as are required for the degree should be approved. This will reduce the number of conferences and enable the student to make appropriate choices of electives at each registration. All electives must be approved by the adviser. Many advisers leave the campus for the summer; students should, therefore, make plans with their advisers during the fall and spring terms.

CHOICE OF REQUIRED COURSES: In some degree programs only one of two consecutively listed courses must be taken, e.g., Secondary School Curriculum or Elementary School Curriculum. The student should take the course which is consistent with his grade-level interest and degree program.

RECORD OF GRADUATE PROGRAM: It is important that the student obtain a copy of the "Record of Graduate Program" from his adviser at the first conference. This copy should be brought to all subsequent conferences and all progress, as well as changes, should be entered by the adviser on both the student's and adviser's copies. The adviser's copy must be attached to the form "Application for Degree" which is sent to the Graduate School prior to degree conferral.

COMPREHENSIVE EXAMINATIONS: The Comprehensive Examination may not be taken until the student is in his final term of course work. It may be deferred until after all course work has been completed, provided that it is passed within the prescribed six-year period. This applies to all matriculated students regardless of the particular regulations governing their degree programs.

CHANGE IN PROGRAM: A graduate student may change his degree program or area of concentration only after receiving written approval of the Graduate Committee.

A graduate student who has changed his degree program or area of concentration must meet all requirements of the new program which were in effect at the time of the change. The student's date of acceptance is not changed.

\* INFORMATION ON THE ATTACHED SHEET SUPERSEDES THAT FOUND IN THIS CATALOGUE. IN GENERAL, THE WORD "ACCEPTED" SHOULD BE SUBSTITUTED FOR THE WORD "MATRICULATED" IN THE CATALOGUE TEXT.



## DIVISION OF CONTINUING STUDIES

The Division of Continuing Studies schedules courses for undergraduate, graduate, and audit credit as well as non-credit courses.

Most graduate students earn all of their credits in courses offered through the Division. It is essential, therefore, to obtain the Division's brochure prior to each term (fall, spring and summer). Information relative to course offerings, office hours, course registration, tuition and related matters will be found in this brochure.

The Office of the Division is located on the first floor of Boyden Hall.

## THE GRADUATE SCHOOL

The Graduate School offers programs leading to the degree of Master of Education in Elementary Education, Guidance, Reading, Secondary Education (with a concentration in a subject field), School Administration, and Special Education.

Candidates for the master's degree follow those regulations governing the degree program which were in effect at the time of their matriculation. The college, however, reserves the right to modify all regulations, at any time, to conform with current graduate school practice. Such modifications are published in the Catalogue of the Graduate School. This Catalogue is published in August of each year and is mailed to all matriculated students. Non-matriculated students may obtain a Catalogue from the Graduate School. Failure to acquaint oneself fully with the regulations, and any changes in them, may cause unfortunate complications for which the student must accept the responsibility. Copies of all regulations are available at the Graduate Office. The effective dates for these regulations are as follows:

Regulations	Inclusive Effective Dates
1963	January 1, 1963 - June 30, 1965
1965	July 1, 1965 - January 16, 1966
January 1966	January 17, 1966 - August 30, 1966
September 1966	September 1, 1966 - August 31, 1967
1967	September 1, 1967 - August 31, 1969

## OFFICE OF THE GRADUATE SCHOOL

The Office of the Graduate School, which is located in Room 211 of the Conant Science Building, is open from 9:00 a.m. to 5:00 p.m., Monday through Friday, except for legal holidays, throughout the year.

Appointments with the Dean may be made by telephoning 697-6161 extension 301.

## COURSES

Most courses required for partial fulfillment of the requirements for the degree of Master of Education, are scheduled by the Division of Continuing Studies. Classes are conducted afternoons and evenings, Monday through Thursday during the Fall and Spring Terms. Summer Session classes are also scheduled by the Division of Continuing Studies.

A limited number of full-time graduate students (those taking 12 or more semester hours of work) may take some of their courses in the Day School. Information about these courses, and permission to enroll in them, may be obtained from the Dean of the Graduate School.

Matriculated graduate students, and those who plan to apply for admission to the Graduate School, should obtain the Bulletin of the Division of Continuing Studies which is published each term and includes a schedule of courses for the term.

Students are limited to not more than six (6) semester hours of work during the summer session. Teachers in service, who are working toward their master's degrees, may not take more than six (6) semester hours of work in any given term.

## PREREQUISITES

Students should make certain that they have taken the necessary prerequisites (if any) for each course (course prerequisites).



Failure to do so may result in loss of any credit earned in a course having prerequisites. There are also prerequisites for each degree program (degree prerequisites). Applicants to the Graduate School who have completed any degree prerequisites should request and file the form "*Petition for Acceptance of Prerequisites*" with the Graduate School. This form is available at the Graduate Office. The Graduate School notifies the student's advisor as to which prerequisites have been accepted. It should be noted that degree prerequisites may be fulfilled after matriculation. Additional information relative to degree prerequisites may be found in the section on Degree Programs.

## STUDENT TEACHING

A graduate student, matriculated for the degree of Master of Education, who plans to fulfill the prerequisite of student teaching, should observe the following procedures:

1. A student who meets the minimum subject matter requirements for certification in Massachusetts, is eligible to student teach when he has completed all degree prerequisite courses and at least 24 semester hours of approved graduate course work.
2. An application form entitled "*Application for Off-Campus Student Teaching in the Public Schools*" should be obtained from the Office of the Director of Teacher Education and Placement in Boyden Hall.
3. The student should complete the application and file it with the Division of Continuing Studies.
4. The student must register for the course, ED492 "Supervised Teaching in the Public Schools U", through the Division of Continuing Studies, at least one term prior to the time he wishes to begin his student teaching.

## GENERAL REQUIREMENTS FOR THE DEGREE OF MASTER OF EDUCATION

Requirements for the degree shall be a minimum of thirty-three semester hours of graduate credit, or thirty semester hours of graduate credit and a thesis, unless otherwise indicated. Students who do a thesis should request the brochure entitled "*The Master's Thesis*" from the Office of the Graduate School.

Students who have taken appropriate graduate courses, at either Bridgewater State College or at some other approved graduate school, prior to matriculation, may request that up to six semester hours, of grade "B" or better, be accepted in partial fulfillment of degree requirements. A form entitled "*Petition for Acceptance of*



*Graduate Courses Taken Prior to Matriculation*" should be obtained from and filed in duplicate with the Graduate School. This form should be submitted with the student's application for admission. If the student is admitted, the Graduate School will notify his advisor of the graduate courses which have been accepted. The advisor will record this information on the student's copy of the *"Record of Graduate Program."*

After matriculation, a maximum of six hours of grade "B" or better, taken at an approved graduate school, with the approval of the advisor, may be transferred unless the student has already transferred such credits from courses taken prior to matriculation. In no case may more than a total of six appropriate hours be transferred from other graduate schools.

All courses taken after matriculation in partial fulfillment of degree requirements must have the approval of the advisor and be recorded on the *"Record of Graduate Program."*

The student is responsible for requesting that transcripts of all courses taken prior to matriculation and all courses taken off-campus after matriculation be sent to both the advisor and to the Dean of the Graduate School.

While students are expected to make satisfactory progress in their course work, the accumulation of credit hours is not regarded as the sole index of a student's progress or as a guarantee that he will be granted a degree. Each degree candidate must give evidence that he can integrate information and ideas from the various areas in which he is studying. The principal instrument for measuring this achievement is the Comprehensive Examination. This Examination may be written and/or oral, and will be based upon the area of concentration and related fields as indicated under Degree Requirements for the specific degree.

A candidate who plans to take the Comprehensive Examination should file the form entitled, *"Request to Take the Comprehensive Examination."* This form should be completed and filed in the Graduate Office not later than the deadline indicated in the Calendar of the Graduate School. This Examination must be taken when a candidate is in the last term of degree course work or after the completion of all course work. A candidate who fails a Comprehensive Examination shall be given only one further opportunity to take it. Those who take the Comprehensive Examination will be notified of the results by mail.

Students matriculated under the 1963 and 1965 regulations will be given a written examination in the areas of Guidance, Philosophy, and Psychology. The dates for these examinations are published in the Calendar of the Graduate School.

Students matriculated under the January and September 1966 regulations will be given a written and/or oral examination in their area of concentration. Students matriculated under the 1967 regulations will find information on the Comprehensive Examination in this Catalogue, under their specific degree program. These examinations are given during the months of November, April and July.

All students should consult the Calendar of the Graduate School relative to deadlines for requesting the Comprehensive Examination.

Graduate course achievement will be rated A, B, C, F, W-P (Withdrawn-Passing), W-F (Withdrawn-Failing), Inc. (Incomplete), or AU (Audit). Graduate students who receive grades of C or below in more than two courses must withdraw from the program unless special permission to continue is recommended by the advisor, the Graduate Committee and the Dean of the Graduate School. A minimum grade of "B" is required for all courses in the area of concentration. Changes in the type of credit requested, (U or G), may not be made after one-fifth of the classes and laboratories in a given course have been held.

## COMMENCEMENT

Candidates for the master's degree who expect to fulfill all requirements for this degree in January, May, or August, should request the form, "*Application for Degree*" from the Graduate Office. This form should be completed and filed not later than the deadline indicated in the Calendar of the Graduate School. Failure to file before the deadline will postpone degree conferral.

Diplomas are awarded at the June Commencement and also during the months of February and August. Students who receive their diplomas in August or February should plan to attend the following June Commencement and wear appropriate academic regalia. Information relative to Commencement is sent to these students in May.

## ADMISSION

### *Application*

Students seeking admission to graduate status at the Massachusetts State College at Bridgewater must hold a bachelor's degree from a four-year institution of acceptable standing. College seniors may be admitted on a conditional basis.



The College reserves the right to prescribe certain undergraduate courses, when, in the opinion of the department in which a candidate proposes to concentrate and/or the Graduate Committee, a candidate is not sufficiently prepared in certain critical areas.

Applicants to the Graduate School should make certain that the following are on file in the Office of the Graduate School.

1. A formal application. Application forms may be obtained from the Graduate Office.
2. The results of the Aptitude Test of the Graduate Record Examination. The candidate must arrange to have his scores sent from the Educational Testing Service to the Dean of the Graduate School. Photostatic copies are not acceptable. The following is a statement on transcript service by the Educational Testing Service. "For students tested after October, 1959, transcript service is available only until September 30 following the fourth anniversary of the test date." If you cannot obtain your Graduate Record Examination scores from the Educational Testing Service, it will be necessary for you to take the Graduate Record Examination again. Application forms and information relative to the GRE may be obtained from the Graduate Office.
3. Candidates who wish to take the Miller Analogies Test, to provide supplementary data in support of their candidacy, may do so. This test, however, may not be taken in lieu of the Graduate Record Examination. The candidate must arrange to have his scores sent from The Psychological Corporation to the Dean of the Graduate School. Photostatic copies are not acceptable. Information relative to the MAT may be obtained from the Graduate Office.
4. Two copies of an official transcript, bearing the seal of the college, of his undergraduate record. The transcripts must be forwarded by the registrar of the college to the Dean. A student who has taken his undergraduate work at more than one college, should have two official transcripts sent from each college attended. If a student has completed courses beyond the baccalaureate, duplicate transcripts of these should also be sent. Graduates of the Massachusetts State College at Bridgewater should request the College Registrar to send copies of their undergraduate work to the Dean of the Graduate School.
5. Two recommendations which indicate an estimate of the candidate's ability to successfully pursue a graduate program. Only recommendations from members of a college faculty who have taught a candidate at the collegiate level are acceptable. Forms for recommendations are available at the Graduate Office. Only recommendations submitted on these forms will be considered in evaluating a candidate.



6. Those applicants who have completed one or more degree prerequisites should file two copies of the form "*Petition for Acceptance of Prerequisites.*" This form may be obtained from the Graduate School.
7. Those applicants who have completed one or more appropriate graduate courses should file two copies of the form "*Petition for Acceptance of Graduate Courses Taken Prior to Matriculation.*" This form may be obtained from the Graduate School.

An application is not complete, and no applicant will be considered for admission, unless all of the above documents have been received by the Dean of the Graduate School.

Applicants should check the Calendar of the Graduate School relative to deadlines for submitting completed applications. Completed applications received after a deadline, will be considered for the next admission date.

#### *Action By The Academic Department*

The Dean of the Graduate School sends all completed applications to the academic department in which the applicant proposes to take his concentration. Departments are asked to make their recommendations to the Graduate Committee in May and December of each year.

#### *Action By The Graduate Committee*

The Graduate Committee meets in May and December of each year to consider completed applications.

The Committee, after examining each applicant's credentials and the academic department's evaluation, makes its recommendations to the Dean of the Graduate School. The Committee may recommend.

1. That the applicant be admitted as a candidate for a master's degree.
2. That the applicant be admitted as a probationary student and that he be reconsidered for admission to candidacy for the degree after the satisfactory completion of fifteen semester hours of graduate work. A probationary student should file a form, "*Petition for Removal of Probationary Status*", when he has completed fifteen semester hours of graduate work with a grade of "B" or better in each course. Only courses taken after admission to a graduate degree program at Bridgewater State College may be counted as part of the fifteen hours.

3. That the applicant be admitted conditionally pending the receipt of a baccalaureate. A college senior, who is admitted to the program on condition, should request his college to forward a complete transcript as soon as possible.
4. That the applicant not be admitted.

The successful completion of graduate courses before application shall not obligate the academic department or the Graduate Committee to recommend an applicant for acceptance.

#### *Action By The Dean Of The Graduate School*

The Dean, after reviewing the recommendations of the academic department and the Graduate Committee, makes the final decision, and notifies the applicant. At the same time the Dean sends the candidate's name to the chairman of the department in which he proposes to concentrate. The chairman assigns an advisor to the candidate and the Graduate School sends the name of the advisor to the candidate.

It is important that the candidate telephone his advisor at the college and make an appointment for planning his program. At the first meeting with his advisor, the candidate will be given a copy of all required work for the degree on the form entitled "*Record of Graduate Program*." Courses listed on this copy should be initialed by the advisor, who retains the original. The original is sent to the Graduate School when the candidate applies for his degree. The student should bring his copy of the "*Record of Graduate Program*" to every conference with his advisor.

## DEGREE PROGRAMS

The following programs leading to the degree of Master of Education have been developed by the appropriate faculties and the Graduate (Curricula) Committee. A student should not take any courses, other than those listed under Required Courses, without approval of his faculty advisor.

A graduate student who wishes to change his area of concentration, must petition the Graduate Committee through the Dean of the Graduate School. The student and his advisor will be apprised of the Committee's action.

All degree work must be completed within six years from the date of acceptance.

All graduate credits offered in partial fulfillment of degree requirements must have been earned not more than six years prior to completion of the degree program.



# MASTER OF EDUCATION IN ELEMENTARY EDUCATION

## Required Courses

S.H.

ED 430 Principles & Practices of Guidance	3
ED 450 Elementary School Curriculum	3
ED 500 Research and Evaluation	3
ED 520 Psychological Foundations of Education	3
ED 554 Seminar in Elementary Education	3
ED 560 Principles & Practices of School Administration	3
ED 580 Philosophical Foundations of Education	3
	21

## Elective Courses\*

Twelve Hours will be elected from Elementary Methods and Materials or from subject fields. These will be chosen, at the discretion of the advisor, in keeping with professional goals, experience, and courses already taken prior to matriculation.

Basic courses recommended for those candidates with little or no knowledge of elementary education include:

S.H.

ED 330 Teaching Reading in the Elementary School	3
ED 340 Language Arts Methods and Materials in the Elementary School	3
ED 350 Elementary School Mathematics Methods and Materials	3
ED 460 Science Methods and Materials in the Elementary School	3
ED 470 Social Studies Methods and Materials in the Elementary School	3
	0 - 12

Candidates with an undergraduate major in elementary education, or with several years of elementary experience and course work, may choose from among a variety of courses closely related to elementary education, including advance education courses. The following are examples of appropriate courses:

AR 212 General Crafts*	3
AR 391 History of Art	3
AV 450 Techniques and Media of Audio-Visual Instruction*	3
AV 452 Science of Photography and Education	3
AV 455 Projectural Technology for Instruction	3
ED 332 Diagnosis and Correction of Reading Difficulty	6



ED	360	Methods and Materials in Elementary Music*	3
ED	362	Methods and Materials in Elementary Art*	3
ED	402	Team Teaching	3
ED	415	Methods and Materials for the Gifted Learner	3
ED	416	Teaching the Slow Learner	3
ED	543	Improving Reading Instruction	3
EN	300	History and Structure of the English Language	3
ES	252	Geography of Anglo-America	3
ES	301	Astronomy	3
ES	502	Conservation of Natural Resources	3
HPE	370	The Theory and Practice of Physical Education in Elementary Schools	3
HPE	455	First Aid	3
HPE	465	School Health Program	3
HPE	495	Health Problems	3
LI	210	Children's Literature	3
LI	450	The School Library	3
LI	451	Storytelling	3
MA	351	Modern Mathematics for Elementary School Teachers I	3
MA	352	Modern Mathematics for Elementary School Teachers II	3
MA	353	Modern Algebra for Elementary School Teachers	3
MA	354	Modern Geometry for Elementary School Teachers	3
MA	355	Probability and Statistics for Elementary School Teachers	3
MU	400	Creative Activities in Elementary School Music	3
OC	290	Speech Improvement in the Classroom	3
OC	330	Creative Dramatics	3
OC	380	Play Production	3
OC	400	Speech Arts (Advanced Oral Communication)	3
OC	412	Phonetics	3
			<hr/> Total 33

\*These courses may be elected by a candidate who has not taken an equivalent course as an undergraduate. All electives must have prior approval of the advisor.

### Prerequisites

Prerequisites for this degree include three semester hours credit in each of the following:

PY 200 General Psychology  
 PY 224 Child Growth and Development  
 PL 380 Introduction to General Philosophy  
 ED 420 Educational Measurement  
 ED 480 Philosophy of Education

One full semester of successful classroom teaching experience,  
at the appropriate level, in an accredited public or private school.

or

One-half semester of successful student teaching, at the appropriate level, under college supervision.

### Comprehensive Examination

Candidates must pass a comprehensive examination in the general field of Elementary Education and in any or all of the following related areas: Guidance, Curriculum, Psychology, Administration, and Philosophy.

## MASTER OF EDUCATION IN GUIDANCE

<u>Required Courses</u>	<u>S.H.</u>
ED 430 Principles and Practices in Guidance	3
ED 443 Secondary School Curriculum	3
or ED 450 Elementary School Curriculum	3
ED 500 Research and Evaluation	3
ED 520 Psychological Foundations of Education	3
ED 530 Counseling Theory and Practice	3
ED 534 Educational and Vocational Information	3
ED 560 Principles & Practices in School Administration	3
ED 580 Philosophical Foundations of Education	3
	24
<u>Electives Courses - Nine Hours From:*</u>	
ED 277 Psychology of Exceptional Children	3
ED 531 Organization and Administration of Guidance Programs	3
ED 532 Practicum in Counseling	3
ED 533 Psychological Tests in Guidance	3
ED 535 Principles and Practices in Placement	3
	9
	<u>TOTAL 33</u>

\*All electives must have prior approval of the advisor.

### Prerequisites

Prerequisites for this degree include three semester hours credit in each of the following:

- PY 200 General Psychology
- PY 224 Child Growth and Development or
- PY 226 Adolescent Psychology



PL 380 Introduction to General Philosophy  
 ED 420 Educational Measurement  
 ED 480 Philosophy of Education

One year of successful teaching, at the appropriate level, in an accredited public or private school.

### Comprehensive Examination

Candidates must pass a comprehensive examination in the general field of Guidance and in any or all of the following related areas: Curriculum, Psychology, Administration, and Philosophy.

### MASTER OF EDUCATION IN READING

<u>Required Courses</u>	<u>S.H.</u>
ED 332 Diagnosis and Correction of Reading Difficulties	6
ED 443 Secondary School Curriculum	3
or ED 450 Elementary School Curriculum	3
ED 500 Research and Evaluation	3
ED 520 Psychological Foundations of Education	3
ED 543 Improving Reading Instruction	3
ED 544 Seminar in Reading and Language Arts	3
ED 580 Philosophical Foundations of Education	3
	24

### Elective Courses For Reading Specialists\*

Each candidate will round out his specialization with nine hours of appropriate course work selected at the discretion of the advisor in keeping with professional goals, experience, and courses already taken. Choices will be made from the following fields:

Administration and Supervision	
Educational Methods and Materials	
Linguistics	
Psychology and Measurement	
Oral Communication and Speech	9

Candidates must submit a major paper as part of the requirements for the seminar in Reading and Language Arts.

TOTAL 33

\*All electives must have prior approval of the advisor.

## Prerequisites

Prerequisites for this degree include three semester hours credit in each of the following:

PY 200 General Psychology  
PY 224 Child Growth and Development or  
PY 226 Adolescent Psychology  
ED 330 Teaching Reading in the Elementary School or  
ED 331 Developmental Reading in the Secondary School  
PL 380 Introduction to General Philosophy  
ED 420 Educational Measurement  
ED 480 Philosophy of Education

One full semester of successful classroom teaching experience, at the appropriate level, in an accredited public or private school.

or

One-half semester of successful student teaching, at the appropriate level, under college supervision.

## Comprehensive Examination

Candidates must pass a comprehensive examination in the general field of Reading Instruction and Remedial Procedures and in any or all of the following related areas: Curriculum, Psychology, and Philosophy.

## MASTER OF EDUCATION IN SCHOOL ADMINISTRATION

The concentration in Administration is for persons wishing to prepare for school administration at the level of elementary or secondary principalships (including assistant principals and department heads) and also as a beginning experience for school district office administrators.

It is to be understood that further work beyond this degree would be required for preparation for superintendencies and other specialized administrative areas. The latter might include curriculum directors and assistant superintendents with special responsibilities for business management, school plant, personnel, and pupil services.

## Required Courses

	<u>S.H.</u>
ED 430 Principles & Practices of Guidance	3
ED 443 Secondary School Curriculum	3
or ED 450 Elementary School Curriculum	3
ED 500 Research and Evaluation	3
ED 520 Psychological Foundations of Education	3
ED 560 Principles & Practices of School Administration	3
ED 561 Elementary School Administration	3
or ED 562 Secondary School Administration	3
ED 568 Seminar in Problems of School Administration	3
ED 580 Philosophical Foundations of Education	3



### Elective Courses - Nine Hours From:\*

AV 453 Public Relations	3
ED 404 Fundamentals of Data Processing	3
ED 563 Personnel Administration	3
ED 564 Public School Supervision	3
ED 565 School Finance & Business Administration	3
ED 566 School Plant Administration	3
ED 567 Administration of the School Activity Program	3
ED 569 Legal Aspects of School Administration	3
ED 570 Federal Assistance to American Education	3
HPE 426 Management of Athletics	3

9

TOTAL 33

\*All electives must have prior approval of the advisor.

### Prerequisites

Prerequisites for this degree include three semester hours credit in each of the following:

- PY 200 General Psychology
- PY 224 Child Growth and Development (Elementary Administration) or
- PY 226 Adolescent Psychology (Secondary Administration)
- PL 380 Introduction to General Philosophy
- ED 420 Educational Measurement
- ED 480 Philosophy of Education

One year of successful teaching, at the appropriate level, in an accredited public or private school.

### Comprehensive Examination

Candidates must pass a comprehensive examination in the general field of School Administration and in any or all of the following related areas: Guidance, Curriculum, Psychology, and Philosophy.

### MASTER OF EDUCATION IN SECONDARY EDUCATION

<u>Required Courses</u>	<u>S.H.</u>
ED 430 Principles and Practices in Guidance	3
ED 500 Research and Evaluation	3
ED 520 Psychological Foundations of Education	3
ED 560 Principles and Practices in School Administration	3
ED 580 Philosophical Foundations of Education	3
ED Teaching (Concentration) in the Secondary School	3

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For candidates choosing Library Science as a concentration, LI 404 Research and Evaluation in Library Science, should be substituted for Methods and Materials in the field of concentration.

Elective Courses - A Concentration of Fifteen Hours in One of the Following Fields:\*

Biological Sciences	Mathematics	
Chemistry	Modern Foreign Languages	
Earth Sciences	Physical Sciences	
English	Physics	
History	Social Sciences	
Humanities		TOTAL 33
Library Science		

\*All electives must have prior approval of the advisor.

### Prerequisites

Prerequisites for this degree include three semester hours credit in each of the following:

- PY 200 General Psychology
- PY 226 Adolescent Psychology
- PL 380 Introduction to Philosophy
- ED 420 Educational Measurement
- ED 480 Philosophy of Education
- ED 443 Secondary School Curriculum

One full semester of successful classroom teaching experience, at the appropriate level, in an accredited public or private school.

or

One-half semester of successful student teaching, at the appropriate level, under college supervision.

### Comprehensive Examination

Candidates must pass a comprehensive examination in their academic field, e.g., English, History, Physics, etc. and Methods in this field, as well as in any or all of the following related areas: Guidance, Psychology, Administration, and Philosophy.

## MASTER OF EDUCATION IN SPECIAL EDUCATION

<u>Required Courses</u>	<u>S.H.</u>
PY 228 Subnormal Psychology	3
ED 410 Introduction to Special Education	3
ED 411 Methods and Materials in Special Education	3
ED 430 Principles and Practices in Guidance	3
ED 500 Research and Evaluation	3
ED 520 Psychological Foundations of Education	3



ED 560 Principles and Practices in School Administration	3
ED 580 Philosophical Foundations of Education	3
	24

Elective Courses - Three Hours From Each of The Following -  
Total Nine Hours\*

Group A

OC 290 Speech Improvement in the Classroom	3
ED 415 Methods and Materials for the Gifted Children	3
ED 416 Teaching the Slow Learner	3
ED 417 Methods and Materials in Teaching Emotionally Disturbed Children	3
ED 543 Improving Reading Instruction	3

Group B

ED 412 Organization and Administration of Special Education	3
ED 413 Industrial Arts in Special Education	3
ED 414 Domestic Arts in Special Education	3

Group C

PY 227 Psychology of Exceptional Children	3
PY 320 Abnormal Psychology	3
ED 418 Etiology, Dynamics and Treatment of Emotional Disturbance in Children	3
ED 522 Measurement of Intelligence (Binet)	3
ED 524 Measurement of Intelligence (WAIS and WISC)	3
	9

TOTAL 33

\*All electives must have prior approval of the advisor.

Prerequisites

- PY 200 General Psychology
- PY 224 Child Growth and Development or
- PY 226 Adolescent Psychology
- ED 363 Methods and Materials in Elementary Art or  
AR 212 General Crafts
- PL 380 Introduction to General Philosophy
- ED 420 Educational Measurement
- ED 480 Philosophy of Education

One full semester of successful classroom teaching experience,  
at the appropriate level, in an accredited public or private school.

or

One-half semester of successful student teaching, at the appropriate level, under college supervision.

## Comprehensive Examination

Candidates must pass a Comprehensive Examination in the general field of Special Education and in any or all of the following related areas: Psychology, Guidance, Administration, and Philosophy.

## POLICY ON MATRICULATING FOR A SECOND MASTER'S DEGREE

Students may be permitted to matriculate for a second master's degree in education. Such applicants must:

1. File the regular application form.
2. Take the Graduate Record Examination and submit two letters of reference. (unless this has been done previously)
3. Fulfill all degree prerequisites.

Courses taken after completion of a first master's degree, may be counted. Six (6) semester hours of transfer credit may be allowed. All courses must be less than six (6) years old at the time of completion of degree requirements. A minimum of 33 semester hours of graduate credit or 30 semester hours of course work and a thesis, must be completed after the student has completed all requirements for his first master's degree.

## DEPARTMENTAL COURSE OFFERINGS

The following section contains courses scheduled through the Division of Continuing Studies. Some of these are also given in the day session.

### CLASS SCHEDULES

Fall and spring classes in the Division of Continuing Studies are scheduled between the hours of 5:00 P.M. and 10:15 P.M., Monday through Thursday. Each course meets once per week.

Summer School classes are scheduled by the Division of Continuing Studies between the hours of 8:30 A.M. and 12:45 P.M., Monday through Friday, and from 7:00 P.M. to 9:05 P.M. on Monday, Wednesday and Thursday of each week. Morning courses meet five times per week and evening courses meet three times per week.

Changes in scheduling will be announced at Registration or as soon thereafter as possible.

### GENERAL STATEMENT ON COURSES

Students should make certain that they have the necessary prerequisites (if any) for each course. Failure to do so may result in loss of any credit earned in a course having prerequisites.



Courses marked G are strictly graduate courses whereas those designated UG may be taken for either undergraduate or graduate credit. In order to enroll in a G course or to obtain graduate credit in a UG course; a student must hold a bachelor's degree from a four-year college and, at the time of registering for a course, indicate on the registration form his intention of taking it for graduate credit.

Courses marked U are strictly undergraduate courses which are prerequisites to one or more UG or G courses. U courses may not be taken for graduate credit.

Symbols following each course description are interpreted as:

F	fall term
S	spring term
SS	summer term

The Bulletin of the Division of Continuing Studies, which is published each term, gives the days and hours of meeting for all courses scheduled during the term.

Successful completion of courses does not obligate the Graduate Committee to accept a student in a graduate program.

## DIVISION OF THE HUMANITIES

Dr. Harold Guy Ridlon, Director

The Division of the Humanities is comprised of the Departments of English, Modern Foreign Languages, and Philosophy.

## DIVISION OF CREATIVE ARTS

, Director

The Division of the Creative Arts is comprised of the Departments of Art, Music, and Speech and Drama.



## DEPARTMENT OF ART

Associate Professor Doris Emma Tebbetts, Chairman

Associate Professor: Robert Alphonse Daniel

Assistant Professor: Shirley Ann Wood

Instructors: John William Heller, William Kendall.

### *AR 280 Understanding the Arts UG*

The primary aim in this course is the development of a framework for visual understanding and enjoyment. The student is taught to apply an analytical technique to specific objects chosen for study. Attention is also focused on social, historical, and psychological factors which enter into the total fabric of art. There will be assigned readings and museum visits. 3 semester hours credit.

### *AR 380 General Crafts UG*

The student will be offered a variety of technical processes in the handicrafts. From these he will be asked to select a limited number of projects which he will complete; each one to be representative of a different craft area. (The General Crafts courses, AR 213, 214, formerly required, are no longer offered.) 3 semester hours credit.

### *AR 383 Ceramics I UG*

This course is planned to develop proficiency in the basic forming processes of the coil and slab methods, and as an introduction to wheel forming. Emphasis will be placed upon clay as a design medium and will involve the use of glazes as an aspect of ceramic design. (This course was formerly offered in AR 381, 382 Crafts.) 3 semester hours credit.

### *AR 384 Ceramics II UG*

Clay as a vehicle for self-expression will be explored in this course in ceramic design which will utilize and combine forming processes; survey of decorative techniques and applied design; wheel forming; and glaze research. (This course was formerly offered in AR 381, 382 Crafts.) Prerequisite: AR 383 (Ceramics I UG), or permission of Instructor. 3 semester hours credit.

### *AR 385 Pewtersmithing I UG*

This course stresses the art of designing and fabricating flatware and jewelry in the medium of modern pewter. The student will have the opportunity to develop proficiency in the use of the basic hand tools related to the craft. (This course was formerly offered in AR 381, 382 Crafts.) 3 semester hours credit.

#### *AR 386 Pewtersmithing II UG*

This course stresses the art of designing, forming, joining, and surface treatment of hollow and flatware in the medium of modern pewter. General shop information and techniques, knowledges and skills that evolve may be applied to other metals. (This course was formerly offered in AR 381, 382 Crafts.) Prerequisite: AR 385 (Pewtersmithing I UG), or permission of the Instructor. 3 semester hours credit.

#### *AR 387 Techniques of Drawing and Painting I UG*

The course is planned to develop basic skill in pictorial organization in painting and drawing techniques. Evaluation will be based on the individual student's extent of growth during the course. Field trips to art museums and galleries will give the students direct contact with original works of well known artists. (This course was formerly given as AR 383, Techniques of Drawing and Painting.) 3 semester hours credit.

#### *AR 388 Techniques of Drawing and Painting II UG*

Advanced projects in painting and drawing will be planned appropriate to the individual's style of development. Field trips to art museums and galleries will be orientated toward analysis of technique and design. (This course was formerly given as AR 383, Techniques of Drawing and Painting.) Prerequisite: AR 387 (Techniques of Drawing and Painting I UG), or permission of the Instructor. 3 semester hours credit.

#### *AR 390 Interior Design UG*

Traditional and contemporary styles in furniture and interior design are studied in illustrated lectures and field trips. Problems in the selection and arrangement of home furnishings afford opportunity for the development of individual taste. 3 semester hours credit.

#### *AR 391 History of Art UG*

This course is designed to acquaint the student with the major historical developments in art. The phenomenon of style is examined in conjunction with its relation to the historical process. Techniques of stylistic analysis are employed in the study of objects chosen from museum collections. There will be assigned readings and museum work. Prerequisite: AR 280 (Understanding the Arts UG), or permission of the Instructor. 3 semester hours credit.

#### *AR 393 Medieval Art G*

A survey of architecture, sculpture and painting from the Early



Christian thru the High Gothic periods. Prerequisite: AR 391 (History of Art UG), or permission of the Instructor. 3 semester hours credit.

*AR 394 Renaissance Art and Architecture UG*

This course is concerned with the development of the arts of architecture, painting, and sculpture with special emphasis on their interrelationships and their relation to the artistic theories and cultural ideals of the Renaissance. 3 semester hours credit.

*AR 395 Baroque Art G*

The High Renaissance, Mannerist and Baroque styles of the 16th through the 18th centuries will be studied, with particular emphasis on Italy. Prerequisite: AR 391 (History of Art UG), or AR 394 (Renaissance Art and Architecture UG), or permission of the Instructor. 3 semester hours credit.

*AR 396 History of 19th Century Art and Architecture UG*

Sculpture, painting and architecture of Europe and America will be studied. Major art movements from Neo-Classicism to Post-Impressionism and the artists associated with them will receive special attention. Prerequisite: AR 391 (History of Art UG), or permission of the Instructor. 3 semester hours credit.

*AR 397 History of Contemporary Art and Architecture UG*

This course involves a study of painting, sculpture, and architecture in Europe and America from 1800 to the present. Representative works of the various movements which have developed within the history of art will be studied. Attention will be paid to the basic philosophies underlying contemporary art. 3 semester hours credit.

*AR 398 Arts of the Far East UG*

A selective review of major achievements in the arts of the Asiatic tradition: including those of India, Indonesia, China, Korea, and Japan. Comparison, when appropriate, with the arts of the West. Prerequisite: AR 391 (History of Art UG), or permission of the Instructor. 3 semester hours credit.

*AR 399 The Arts of the Americas UG*

A survey of the arts of the early Americas including the Inca, Toltec, Mayan, and Aztec cultures with selected examples from the primitive Indian Arts of North America. 3 semester hours credit.

## DEPARTMENT OF ENGLISH

Professor Harold Guy Ridlon, Chairman

Professor: Samuel Norman Sheinfeld

Associate Professors: Barbara Ann Chellis, Joseph DeRocco, Margaret Frances Guerin, William Spencer Jacobson, Mary Moore Jarvis, Virginia Carville Joki, Charles McGinnis.

Assistant Professors: Harold Francis DeLisle, Katherine Frances Lomax, James Keron Nerney, Tom Gene Watson, Joseph Yokelson.

Instructors: Marcia Jane Anderson, Dolores Elise Brien, Dennis Allen Flynn, Francis Ronald McLellan, Daryl Jane Schoenknecht, Robert Joseph Silbernagel.

### *EN 101, 102 English Composition U*

The major objectives of English Composition are to make the student aware of the possibilities of written expression, to instill in the student a sense of responsibility about the use of language, and to provide frequent directed practice in expository prose. In the first semester, the emphasis will be on the study of language and the improvement of writing skills; in the second semester, the emphasis will be on critical writing based on selected readings. Advanced placement is possible in this course. EN 101 is prerequisite to EN 102. (Although not allowable for graduate credit, this course is a prerequisite for all other courses in English.) 3 semester hours credit for each term.

### *EN 200 Advanced Composition UG*

Expository writing is taught through frequent practice, analysis of models, and criticism by instructor and students. 3 semester hours credit.

### *EN 221, 222 Major English Writers UG*

Classic literature of Western Civilization will be studied in relation to historical background, but with particular emphasis on literary values. Among the works to be read are Homer's Iliad, tragedies of Aeschylus, Sophocles, and Euripides, Dialogues of Plato, selections from the Bible, Vergil's Aeneid, Dante's Inferno, Chaucer's Canterbury Tales, Cervantes' Don Quixote, plays by Shakespeare, Moliere, Goethe, and Shaw, and one or more modern novels. 3 semester hours credit for each term.

### *EN 211, 212 Literary Classics of Western Civilization UG*

This course will emphasize the major figures of English literature from Anglo-Saxon times to the modern period. Authors will be



studied in relation to historical background but with particular stress on literary values. 3 semester hours credit for each term.

*EN 300 The History and Structure of the English Language UG*

The changes in the structure of the English language from Anglo-Saxon to modern English will be studied with attention to pertinent historical background. There will be an introductory study of structural linguistics and generative grammar. 3 semester hours credit.

*EN 330 Modern American Literature UG*

This course is designed to acquaint the student with the major literary trends in American writing of the twentieth century. The course focuses primarily on the novel, with examples from Dreiser, Hemingway, Fitzgerald, Lewis, Wilder, K. A. Porter, and Salinger. 3 semester hours credit.

*EN 337 United States Literature through the Nineteenth Century UG*

In the first semester, the writings of the Puritans, Cooper, Brown, Poe, Emerson, Thoreau, Whitman, and Dickinson will be discussed; in the second semester, emphasis will be given to the novels and tales of Hawthorne, Melville, Twain and James. 3 semester hours credit.

*EN 338 The Short Story UG*

The emphasis in this course will be on a close reading of both British and American short stories. Although some attention will be given to the history and development of the short story, the primary focus will center on the relationship between theme and form, and the techniques employed by various short story writers. 3 semester hours credit.

*EN 341 Shakespeare UG*

In this course selected plays of Shakespeare will be studied. In each quarter three plays, generally two tragedies and one comedy, will be read with attention to both language and thought. 3 semester hours credit.

*EN 352 Victorian Prose and Poetry UG*

The major emphasis will be placed upon the poetry of Tennyson, Browning, and Arnold, but the works of other 19th century poets such as Hopkins and Hardy will also be read and discussed. The essays of Carlyle, Arnold, Newman, Huxley, and others will also be studied. 3 semester hours credit.

*EN 360 The Victorian Novel UG*

This course will concentrate on the major novelists of the 19th century: Dickens, Thackeray, Eliot, Meredith, and Hardy. Attention will be given to biographical and historical background. 3 semester hours credit.

*EN 383 Modern Irish Literature UG*

This course will include Irish writing from 1890 to the present, with special emphasis on the works of Yeats, Synge, O'Casey, Joyce, O'Connor, and O'Faolain. 3 semester hours credit.

*EN 394 Modern Poetry UG*

This course covers the major British and American poets of the 20th century with particular emphasis on the works of Hopkins, Yeats, Robinson, Eliot, Auden, and Thomas. 3 semester hours credit.

DEPARTMENT OF MODERN FOREIGN LANGUAGES

Associate Professor Robert Charles Arruda, Chairman

Associate Professor: Wayne Maurice Judah.

Assistant Professors: Robert Allen Briggs, Joseph Matthew Gianini, Mary Cingolani Shapiro.

Instructors: Anthony Charles Cotugno, Robert Dale Dawley, Armand Eugene Desautels, Barbara Heidelauf George, Lenore Marie Padula, Christiana Pollak Reordan.

French

*LF 101, 102 Elementary French U*

This course offers an aural-oral approach to the grammar of the French language. Emphasis will be on the mastery of correct pronunciation and essential grammatical points to ensure basic oral and reading commands of the language. 3 periods weekly; 3 semester hours credit for each semester.

*LF 151 Intermediate French I UG*

This course is a continuation of Elementary French with stress on essential grammatical points, oral work, and reading knowledge of the language. An introduction to some aspects of French literature will also be included. Prerequisite: LF 101, 102 (Elementary French U). 3 semester hours credit.



*LF 152 Intermediate French II UG*

This course is a continuation of Elementary French with stress on essential grammatical points, oral work, and reading knowledge of the language. An introduction to some aspects of French literature will also be included. Prerequisite: LF 151 (Intermediate French UG). 3 semester hours credit.

*LF 181 Introduction to Advanced French I UG*

A rapid and systematic review of French grammar along with more advanced study of the language, this course also includes advanced reading selections with emphasis on French culture. Prerequisite: LF 151, 152 (Intermediate French I, II UG). 3 semester hours credit.

*LF 182 Introduction to Advanced French II UG*

A rapid and systematic review of French grammar along with more advanced study of the language, this course also includes advanced reading selections with emphasis on French culture. Prerequisite: LF 181 (Introduction to Advanced French I UG). 3 semester hours credit.

*LF 201 French Literature of the Middle Ages UG*

A survey of medieval French literature, including a study of cultural and literary innovations in France from the ninth through the fifteenth centuries. Readings in modern foreign translation will include: Chanson de Roland, Tristan et Iseut, Roman de la Rose, Yvain, Fabliaux, Poesie Lyrique, Theatre Comique. Prerequisite: LF 181, 182 (Introduction to Advanced French I, II UG). 3 semester hours credit.

*LF 281 French Conversation and Civilization UG*

This course is designed to improve oral expression and pronunciation. Discussion topics on aspects of French Civilization will be assigned, with a view to building vocabulary and to making applications of structures learned. There will also be assigned reading in French Civilization. Prerequisite: LF 181, 182, (Introduction to Advanced French UG). 3 semester hours credit.

*LF 301 Seventeenth Century French Literature UG*

The principal historical events and representative writers of France in the seventeenth century will be studied with the object of understanding Classicism as a literary movement. The course will deal with the ideas and works of this period from Malherbe through

Madame de Maintenon. Prerequisite: LF 201 (French Literature of the Middle Ages UG and LF 252 (Sixteenth Century French Literature UG). 3 semester hours credit.

*LF 352 Eighteenth Century French Literature UG*

The literature of the French Revolution and Empire and the literary contributions of the Encyclopedists will be the principal concerns of this course. Some of the authors to be studied are: Le Sage, Marivaux, Montesquieu, Voltaire, Rousseau, Beaumarchais, Chenier, and the Encyclopedists. Prerequisite: LF 301 (Seventeenth Century French Literature UG). 3 semester hours credit.

*LF 381 French Linguistics and Phonetics UG*

In this course a linguistic approach to the study of the sounds of the French language is made with emphasis on a mastery of the elements of correct standard pronunciation. Prerequisite: LF 181, 182 (Introduction to Advanced French Literature UG). 3 semester hours credit.

*LF 401 Nineteenth Century French Literature UG*

This course will cover the nineteenth century through representative literary works and the principal literary movements of Romanticism. Prerequisites: LF 301 (Seventeenth Century French Literature UG and LF 352 (Eighteenth Century French Literature UG). 3 semester hours credit.

*LF 452 Twentieth Century French Literature UG*

This course involves a study of modern French literature from the authors of "national energy" at the turn of the century, to those of the present day. Important literary movements will be discussed and typical works of well-known authors will be read for class work and individual reports. Particular attention will be given to Bourget, Gide, Apollinaire, Peguy, Claudel, Romain, Sartre, Camus, and others. Prerequisite: LF 401, 402 (Nineteenth Century French Literature UG). 3 semester hours credit.

*LF 482 Advanced French Composition and Grammar Review*

Emphasis will be on a review and mastery of the essential grammar of the French language with the intention of making it a useful tool for the students' written and oral use and application to the classroom situation. Students will be required to write compositions of various lengths and forms to develop their ability to express themselves in the written form of the language. Prerequisite: LF 281 (French Conversation and Civilization UG) and LF 381 (French Linguistics and Phonetics UG). 3 semester hours credit.



## German

### *LG 101, 102 Elementary German U*

This course offers an audio-lingual approach to the study of the German language. Emphasis will be on the mastery of correct pronunciation and of essential grammatical points to ensure a basic oral and reading command of the language. 3 semester hours credit for each semester.

### *LG 151 Intermediate German I UG*

This course includes a systematic review of basic German grammar and pronunciation. Graded reading selections will accompany the review to develop and improve the students' reading and conversational knowledge of the language. An introduction to some aspects of German culture will also be included. Prerequisite: LG 101, 102 (Elementary German U), or its equivalent. 3 semester hours credit.

### *LG 152 Intermediate German II UG*

This course includes a systematic review of basic German grammar and pronunciation. Graded reading selections will accompany the review to develop and improve the students' reading and conversational knowledge of the language. An introduction to some aspects of German culture will also be included. Prerequisite: LG 151 (Intermediate German I UG). 3 semester hours credit.

### *LG 181 Introduction to Advanced German I UG*

This course includes a review of German grammar and systematic vocabulary building through reading and discussion of more advanced forms of German literature. The discussions will be conducted mostly in German. Required of all German minors. Prerequisite: LG 152 (Intermediate German II UG). 3 semester hours credit.

### *LG 182 Introduction to Advanced German II UG*

This course includes a review of German grammar and systematic vocabulary building through reading and discussion of more advanced forms of German literature. The discussions will be conducted mostly in German. Required of all German minors. Prerequisite: LG 181 (Introduction to Advanced German I UG). 3 semester hours credit.

### *LG 191, 192 Scientific German I, II UG*

This course involves a systematic review of basic German grammar. The emphasis will be on vocabulary building for the reading of scientific material in German. Open to science majors as a substitution for LG 151, 152 (Intermediate German I, II UG). Pre-

requisite: LG 101, 102 (Elementary German U), or its equivalent. Required of all science majors. 3 semester hours credit.

*LG 201 Survey of German Literature I UG*

This course offers a study of the beginnings of the German language of the important movements and their representative works, and of the outstanding authors in the German language from the Middle Ages to the present. Required of all German minors. Prerequisite: LG 181, 182 (Introduction to Advanced German I, II UG). 3 semester hours credit.

*LG 202 Survey of German Literature II UG*

This course offers a study of the beginnings of the German language, of the important movements and their representative works, and of the outstanding authors in the German language from the Middle Ages to the present. Required of all German minors. Prerequisite: LG 201 (Survey of German Literature I UG). 3 semester hours credit.

Italian

*LT 101, 102 Elementary Italian U*

This course is an aural-oral approach to the grammar of the Italian language. Emphasis will be on the mastery of correct pronunciation and of essential grammatical points to ensure a basic oral and reading command of the language. 3 semester hours credit.

*LT 151, 152 Intermediate Italian I, II UG*

A continuation of Elementary Italian with stress on essential grammatical features, oral work and reading development in the language. Prerequisite: LT 101, 102 (Elementary Italian U). 3 semester hours credit.

Portuguese

*LP 101, 102 Elementary Portuguese U*

An introduction to the basic skills of reading and writing that will seek to develop the aural comprehension and the oral mastery of the Portuguese language. 3 semester hours credit.

*LP 151, 152 Intermediate Portuguese I, II UG*

This course will include a review of basic grammar and pronunciation before continuing with a more advanced study of these two aspects of the language. Reading, writing, and oral proficiencies will be stressed. Prerequisite: LP 101, 102 (Elementary Portuguese U). 3 semester hours credit.



## Spanish

### *LS 101, 102 Elementary Spanish U*

An audio-lingual approach to the essentials of Spanish pronunciation, grammar, reading and writing proficiency will be stressed. 3 semester hours credit.

### *LS 151 Intermediate Spanish I UG*

A review of the important aspects of correct Spanish pronunciation will accompany the development of an oral and aural command of the language. Aspects of Hispanic culture will be introduced. Prerequisite: LS101, 102 (Elementary Spanish U). 3 semester hours credit.

### *LS 152 Intermediate Spanish II UG*

A review of the important aspects of correct Spanish pronunciation will accompany the development of an oral and aural command of the language. Aspects of Hispanic culture will be introduced. Prerequisite: LS 151 (Intermediate Spanish I UG). 3 semester hours credit.

### *LS 181 Introduction to Advanced Spanish I UG*

This course offers a more detailed study of important points of Spanish grammar with attention given to increasing vocabulary, to correct pronunciation, and to improving audio-oral skills. More advanced reading selections and continued presentation of cultural aspects will provide opportunity for acquaintance with the Hispanic world. Prerequisite: LS 151, 152 (Intermediate Spanish I, II UG). 3 semester hours credit.

### *LS 182 Introduction to Advanced Spanish II UG*

This course offers a more detailed study of important points of Spanish grammar with attention given to increasing vocabulary, to correct pronunciation, and to improving audio-visual skills. More advanced reading selections and continued presentation of cultural aspects will provide opportunity for acquaintance with the Hispanic world. Prerequisite: LS 181 (Introduction to Advanced Spanish I UG). 3 semester hours credit.

### *LS 201 Survey of Spanish Literature I UG*

This course involves a survey of Hispanic literature from earliest times to the present. Major literary movements, works, and authors will be stressed. Required of all Spanish minors. Prerequisite: LS 181, 182 (Introduction to Advanced Spanish I & II UG). 3 semester hours credit.

*LS 202 Survey of Spanish Literature II UG*

This course involves a survey of Hispanic literature from earliest times to the present. Major literary movements, works, and authors will be stressed. Required of all Spanish minors. Prerequisite: LS 201 (Survey of Spanish Literature I UG). 3 semester hours credit.

*ML 390 Research Problem in Modern Languages UG*

A special project for advanced students with a Modern Language concentration may be worked out with the Chairman of the Modern Foreign Languages Department. Credit and hours to be arranged.

DEPARTMENT OF MUSIC

, Chairman

Assistant Professors: Dorothy Rose Ferry, Vincent Harold Gannon, Marjorie Elizabeth Hayward.

Instructors: Mary Elizabeth Ellis, Jacob Liberles.

*MU 110 Music Theory U*

Included in this course are the fundamentals of music, its structure and components, sight singing, the methods of teaching vocal music by rote, and basic harmony. 3 semester hours credit.

*MU 321 Music of the Renaissance and Baroque Periods UG*

The chronological development of forms and styles in both sacred and secular music from the Middle Ages through the Baroque will be given special emphasis. Compositions will be studied through recordings. Reading assignments in reference books and standard histories will be given. 3 semester hours credit.

*MU 390 Music of the 20th Century UG*

Important changes in contemporary music will be studied. Major musical forms written since 1900 will be analyzed and critical evaluation made of compositions of this period. Biographical background and historical influences will form a part of the basis of study. This will be approached through the use of textbook and recordings. Prerequisite: MU 320 (History and Development of Music). 3 semester hours credit.

*MU 400 Creative Activities in Elementary School Music UG*

Practical experience will be offered in the following areas: free and directed response to rhythm; use of percussion, melody, and har-



mony instruments; piano chording; creative listening and singing activities. Prerequisite: MU 310 (Music Skills). 3 semester hours credit.

DEPARTMENT OF PHILOSOPHY  
, Chairman

Associate Professors: Joseph John Corkery, Warren David Englund.  
Assistant Professor: Achille Adrien Joyal.

*PL 380 Introduction to General Philosophy U*

This course is an introduction to logical and critical reflection upon the opinion of philosophers concerning the meaning, terminology, and basic problems of philosophy, which should enable the student to begin structuring his own thinking. 3 semester hours credit.

*PL 381 History of Ancient and Medieval Philosophy UG*

The history of western philosophy appropriately begins with its emergence from mythology and religion. The study of systematic philosophy starts with Thales and for the purposes of the course concludes with Duns Scotus. Emphasis will be placed on the development of metaphysical, epistemological, and ethical thinking, and attention will be given to the classical problems of mind and matter, faith and reason, particulars and universals, and good and evil. 3 semester hours credit.

*PL 382 History of Modern Philosophy UG*

The history of modern philosophy will employ the same general approach as is used in the history of ancient and medieval philosophy. The course begins with Francis Bacon and Rene Descartes, and continues with the study of Hobbes, Spinoza, Locke, Malebranche, Leibniz, Berkeley, and Hume, and concludes with Immanuel Kant. 3 semester hours credit.

*PL 400 Comparative Religions U*

This course is designed to introduce the students to the tenets of the major religions. 3 semester hours credit.

DEPARTMENT OF SPEECH AND DRAMA

Associate Professor Robert Jackson Barnett, Chairman  
Associate Professors: Karin VanLissel DuBin, Willis Norman Pitts.  
Assistant Professors: Robert Kenneth Friedman, Lindley Tower Spencer, Richard Warye  
Instructor: Lee Anne Firestone Dunne.

#### *OC 200 Fundamentals of Oral Communication U*

In this course, ideas and values that are central to the total oral communication process are introduced on both the practical and theoretical level. The student is helped to become a responsive and effective participant in conversation, discussion, speech-making, interviewing and other forms of oral expression. 3 semester hours credit.

#### *OC 290 Speech Improvement in the Classroom UG*

This course is designed to help prospective teachers 1) identify children's speech and hearing problems, and understand the needs of these speech-handicapped children; 2) recognize opportunities in everyday classroom activities to provide help and guidance for these children; and 3) provide supplementary activities that stimulate and improve children's speech. 3 semester hours credit.

#### *OC 330 Creative Dramatics UG*

This course is designed to give training and methodology in developing the child's creative faculties through the use of dramatic play. Students will participate in classroom exercises, and work in laboratory sessions with children in order to put into practice the concepts of preparation and evaluation learned through class discussion and lecture. 3 semester hours credit.

#### *OC 340 Oral Interpretation UG*

This course will offer opportunity for the study and practice of various styles of presentation in the oral interpretation of prose and poetry. A detailed evaluation and analysis of that material which is suitable for preparation and delivery to the class will be made. This course is especially recommended for those students with a definite interest in literature and humanities. Prerequisite: OC 200 (Fundamentals of Oral Communication U). 3 semester hours credit.

#### *OC 360 Discussion and Debate UG*

Through frequent practice and intensive study the student is trained in the principles and methods of communication as they apply to the group situation. The function aspects of group membership, discussion, debate, logic, and leadership will be given particular attention. Prerequisite: OC 200 (Fundamentals of Oral Communication U). 3 semester hours credit.

#### *OC 370 Play Production UG*

This course is designed to treat the various aspects of school play production, ranging from classroom to all-school presentations on the elementary or high school level. It deals with such problems as



selecting a play, casting, directing, lighting, costuming and designing, and building scenery. Practical work in the above activities will be required of all students. 3 semester hours credit.

#### *OC 380 Stagecraft UG*

This course will offer the opportunity for the study of the principles of stagecraft. Students will also receive practical experience in the design, construction, painting, rigging and handling of stage scenery. In addition, lighting the stage and prop construction will be studied to a limited degree. Practical work in all areas will be required on a laboratory basis. Prerequisite: OC 370 (Play Production UG). 3 semester hours credit.

#### *OC 390 Acting and Directing UG*

Whereas Play Production deals with the overall approach to play production, this course is concerned mainly with the actor and the director. The art of acting and directing will be studied as well as the prevalent methods which are used today. Students will have the opportunity to do practical work and experimentation in both areas. Prerequisite: OC 370 (Play Production UG). 3 semester hours credit.

#### *OC 402 Advanced Oral Communication UG*

In the advanced course the student is helped to assume leadership responsibilities in the development of both meaning and form in logical and creative modes of oral communication. The students learn to use the more complex areas of oral communication, i.e., role-playing, creative dramatics, story telling, interpretive reading and choral speaking to help him develop the total communicative process. Prerequisite: OC 200 (Fundamentals of Oral Communication U). 3 semester hours credit.

#### *OC 412 Phonetics UG*

The primary emphasis of this course will be upon the study of the International Phonetic Alphabet, and its application to the sounds of the language. The factors of articulation, enunciation, and pronunciation will be noted along with drill work in connection with the sounds of acceptable speech. Further, stress will be placed upon an understanding of the vowels and consonants and upon modes of sound production. Prerequisite: OC 200 (Fundamentals of Oral Communication U). 3 semester hours credit.

#### *OC 420 Children's Theatre UG*

This course is designed as a survey of the history and the objectives of theatre for the child audience. It examines some of the special techniques of acting, directing, and producing plays for children. Attention is given to play selection and the adaptation of children's literature for dramatic presentation. Students will direct scenes or "Cuttings" as part of their class work. Prerequisite: OC 370 (Play Production UG). 3 semester hours credit.

## **DIVISION OF NATURAL SCIENCES AND MATHEMATICS**

**Dr. Frank Joseph Hilferty, Director**

The Division of Natural Sciences and Mathematics is comprised of the Departments of Biological Sciences, Chemistry, Earth Sciences and Geography, Mathematics and Physics.



## DEPARTMENT OF BIOLOGICAL SCIENCES

Professor Kenneth Jesse Howe, Chairman

Commonwealth Professor and Dean of the Graduate School: Frank Joseph Hilferty.

Professors: Elizabeth Fahey Cirino, Lawrence Bronislaw Mish, William James Wall, Jr.

Associate Professors: James Robert Brennan, Walter Arthur Morin.

Assistant Professors: Bradley Sherwood Bowden, Charles Wesley Howie, Jr., Marvin Schwalb.

Visiting Lecturer: Sabit Gabay.

Departmental Prerequisites:

Students taking a concentration in the Department of Biological Sciences are required to have completed a minimum of three hours of general botany and three hours of general zoology (or six hours of a general biology course which includes both botany and zoology), and a minimum of six semester hours each of college chemistry, mathematics, and physics.

### *BI 110 General Botany U*

An introduction to the principles of biology with special reference to the botanical aspects, this course emphasizes the structure, function, and classification of plants. The following topics are considered: structure of cells, tissues, and organs; photosynthesis; water relations; respiration; growth; reproduction; heredity; disease; evolution; and a general survey of the plant kingdom. BI 110 and BI 120 constitute a coordinated course in general biology and students are expected to complete both semesters. 3 semester hours credit.

### *BI 120 General Zoology U*

An introduction to the principles of biology with special reference to zoological aspects, this course emphasizes the following topics: protoplasm and the cell, taxonomy, histology, parasitology, vertebrate and invertebrate anatomy and physiology, embryology, ecology, evolution, and a general survey of the animal kingdom. BI 110 and BI 120 constitute a coordinated course in general biology and students are expected to complete both semesters. 3 semester hours credit.

### *BI 281 Invertebrate Zoology UG*

The biology of invertebrates with emphasis on comparative morphol-

ogy, taxonomy, physiology, natural history, and evolution and representatives of the principal classes of each phylum are studied. Prerequisite: BI 120 (General Zoology U). 3 semester hours credit.

*BI 282 Comparative Chordate Anatomy UG*

A phylogenetic approach to the study of chordate gross anatomy supplemented by laboratory dissections of amphioxus, sand shark, mud puppy, turtle, pigeon, and cat is used. Emphasis is placed on interpretation of morphological trends imposed on chordate systems by environmental stimuli. Prerequisite: BI 120 (General Zoology U) 3 semester hours credit.

*BI 283 Field Natural History UG*

The identification, classification, and natural history of local plants and animals, and techniques of collecting and preserving specimens are included in this course. Prerequisite: BI 110 (General Botany U); BI 120 (General Zoology U). 2 semester hours credit.

*BI 292 Plant Anatomy UG*

This course includes a study of structural features of extant vascular plants from ontogenetic and phylogenetic viewpoints, with special attention given to recent developments in comparative plant anatomy, references to nonvascular and extinct vascular plants, correlation of microscopic features with gross structure, the value of plant anatomy to other sciences and industry, and introductory micro-technique. Prerequisite: BI 110 (General Botany U). 3 semester hours credit.

*BI 300 Biochemistry UG*

A study of the functions, chemical transformations, and attendant energy changes associated with basic biological phenomena is made. Prerequisite: BI 110 (General Botany U); BI 120 (General Zoology U); CH 131-132 (General Chemistry U); MA 103-104 (Mathematical Analysis I, II U). 3 semester hours credit.

*BI 381 Animal Physiology UG*

General physiological principles common to invertebrates and vertebrates are discussed with major emphasis given to: cellular organization, transport phenomena, cellular respiration, secretion, irritability, contraction, and integrated functions in animals. Prerequisite: BI 120 (General Zoology U); CH 131-132 (General Chemistry U); PH 181-182 (Elements of Physics U); MA 103-104 (Mathematical Analysis I, II U); or permission of the Instructor. 3 semester hours credit.



### *BI 393 Genetics UG*

An intensive study is made of the basic principles of heredity and variation in plants and animals. Emphasis is placed on methods of problem solving and the historical background of the science. Prerequisite: BI 110 (General Botany U); BI 120 (General Zoology U); MA 103-104 (Mathematical Analysis I, II U); or permission of the Instructor. 3 semester hours credit.

### *BI 394 Limnology UG*

A field course designed to acquaint the student with principles governing the distribution of species with their aquatic milieu. The application or laboratory phase will be developed around the facilities afforded by the Carver Pond Field Station, Town River Field Station, and the Bioassay Laboratory. Course content will include environmental analysis, life cycles of some dominant forms, taxonomy of the aquatic biota, and pollution ecology. Prerequisite: BI 110 (General Botany U), BI 120 (General Zoology U). 3 semester hours credit.

### *BI 395 Microbiology UG*

This course provides an introduction to the cultivation, growth, and identification of micro-organisms significant to man. Special emphasis is directed toward laboratory techniques. Prerequisite: BI 110 (General Botany U), CH 131-132 (General Chemistry U), or permission of the Instructor. 3 semester hours credit.

### *BI 397 Plant Physiology UG*

This course provides an introduction to the growth and function of plants, including cellular physiology, water relations, metabolism, respiration, photosynthesis, nutrition, and the influence of environment on the growth and development of higher plants. Prerequisite: BI 110 (General Botany U), CH 131-132 (General Chemistry U), or permission of the Instructor. 3 semester hours credit.

### *BI 405 Systematics and Evolution UG*

In this course consideration is given to contemporary taxonomic problems in the light of evolutionary phenomena. Emphasis is placed on such mechanisms of specialization as mutations, variation, hybridization, polyploidy, isolation, natural selection, and genetic drift. Prerequisite: BI 393 (Genetics UG), or permission of the Instructor. 3 semester hours credit.

### *BI 411 Ecology UG*

The dynamics and evolution of populations, communities, and eco-

systems are emphasized. Students will become acquainted with the communities of Southeastern Massachusetts through field studies which make up a major portion of the laboratory requirement. Prerequisite: BI 110 (General Botany U); BI 120 (General Zoology U), or permission of the Instructor. 3 semester hours credit.

*BI 422 Radiation Biology UG*

This course provides a study of unstable isotopes and the types of radiation in the electromagnetic spectrum, with emphasis placed on their biological effects, use in the field of biology, and precautions necessary for utilization. Prerequisite: BI 110 (General Botany U), BI 120 (General Zoology U), CH 131-132 (General Chemistry U), MA 103-104 (Mathematical Analysis I, II U), PH 181-182 (Elements of Physics U), or permission of the Instructor. 3 semester hours credit.

*BI 427 Cytology UG*

A detailed study is made of cellular morphology and organization including descriptions of major intracellular processes and the functional significance of cellular structures. Prerequisite: BI 110 (General Botany U); BI 120 (General Zoology U); or permission of the Instructor. 3 semester hours credit.

*BI 491, 492 Biological Science: BSCS Yellow Version I G*

Selected subject material of importance to proper presentation of BSCS Yellow Version High School Biology is covered in detail. Lecture topics presented are animal physiology, general biochemistry, cytology, and plant physiology. Representative laboratory exercises are performed by the student. Prerequisite: Permission of the Faculty of Biology. 6 semester hours credit for full-time participation in a six-week summer institute.

*BI 493, 494 Biological Science: BSCS Yellow Version II G*

Selected subject material of importance to proper presentation of BSCS Yellow Version High School Biology is covered in detail. Lecture topics presented are evolution, ecology, genetics, and microbiology. Representative laboratory exercises are performed by the student. Prerequisite: Permission of the Faculty of Biology. 6 semester hours credit for full-time participation in a six-week summer institute.

*BI 500 Research in the Biological Sciences G*

This course is designed to provide experience in biological investigation at the graduate level. The research will usually be directed by a faculty member having special training in the sub-



ject under study. Prerequisite: Permission of the Faculty of Biology. (Please note: Students engaging in this course will ordinarily be expected to have completed one year each of college chemistry, mathematics and physics in addition to appropriate courses in biology.) Credits and hours to be arranged.

*BI 520 Neurophysiology G*

The physiology of central and peripheral nervous systems, receptors and muscles, considered in both vertebrates and invertebrates. Prerequisites: BI 120 (General Zoology U); BI 381 (Animal Physiology UG); CH 131 - 132 (General Chemistry U); MA 103-104 (Mathematical Analysis I, II U); PH 181-182 (Elements of Physics U). 3 semester hours credit.

*BI 530 Entomology G*

This course is a study of the biology and control of insects with emphasis on the taxonomy of the orders and major families. Formation of an identified insect collection is required. Prerequisite: BI 120 (General Zoology U); BI 110 (General Botany U). 3 semester hours credit.

(See page 120 for additional listing.)

DEPARTMENT OF CHEMISTRY

Associate Professor Wilmon Blackmar Chipman, Chairman

Associate Professors: Henry Owen Daley, Jr., Margaret Borden Souza.

Assistant Professors: Vahé Madiros Marganian, Joseph Michael Pagano,

*CH 141, 142 Inorganic Chemistry with Qualitative Analysis U*

Theoretical inorganic chemistry with emphasis on mass-energy relationships in terms of structure and physical laws. The second semester laboratory consists of semi-micro qualitative inorganic analysis. CH 141 (Inorganic Chemistry with Qualitative Analysis U) is prerequisite for CH 142 (Inorganic Chemistry with Qualitative Analysis U). 3 semester hours credit each.

*CH 241 Inorganic Quantitative Analysis UG*

A study will be made of the classical and modern methods for the volumetric and gravimetric determination of elements and groups. Prerequisite: CH 142 (Inorganic Chemistry with Qualitative Analysis U) or permission of the Instructor. 4 semester hours credit.

*CH 242 Principles of Inorganic Chemistry UG*

Modern structural concepts of inorganic chemistry and descriptive

inorganic chemistry are presented at an intermediate level. Prerequisite: CH 241 (Inorganic Quantitative Analysis UG) or permission of the Instructor. 3 semester hours credit.

*CH 343, 344 Organic Chemistry UG*

A survey will be made of the chemistry of organic compounds from the points of view of synthesis, structure and reactions, including some study of the mechanisms of organic reactions. Prerequisite: CH 142 (Inorganic Chemistry with Qualitative Analysis U) or permission of the Instructor. CH 343 (Organic Chemistry UG) is prerequisite for CH 344 (Organic Chemistry UG). 4 semester hours credit each.

*CH 381, 382 Physical Chemistry UG*

A study will be made of the laws governing the physical and chemical behavior of compounds. Prerequisite: CH 142 (Inorganic Chemistry with Qualitative Analysis), MA 210 (Calculus I UG). CH 381 (Physical Chemistry UG) is prerequisite to CH 382 (Physical Chemistry UG). 4 semester hours credit each.

*CH 390 Research Problems in Chemistry UG*

Special projects for advanced students desiring individual instruction in the methods of chemical research. Prerequisite: permission of the department. Credit and hours to be arranged.

*CH 581 Modern Organic Chemistry G (NSF)*

A study of organic chemistry from a theoretical viewpoint which excludes most of synthetic organic chemistry from consideration. Topics to be covered include the structure and charge distribution of functional groups, structure proof by chemical and physical methods, stereochemistry, inductive effects, resonance, steric effects, and organic reaction mechanisms. This course can be taken profitably by a student who has had a traditional course in Elementary Organic Chemistry. This course is open only to participants in the National Science Foundation In-Service Institute. 3 semester hours credit.

*CH 582 Biochemistry G (NSF)*

A study of the chemical components of living matter and of the major processes of cellular metabolism, including the fundamental chemical characteristics of biological compounds and enzymatic reactions. This course is open only to participants in the National Science Foundation In-Service Institute. 3 semester hours credit.



## DEPARTMENT OF EARTH SCIENCES AND GEOGRAPHY

Professor Emanuel Maier, Chairman

Professor: Agrippina Anne Macewicz.

Associate Professors: Ralph Sanborn Fellows, Ira Ellsworth Furlong, Howard Franklin Hirt.

Assistant Professors: Robert Francis Boutilier, Richard Enright, Marilyn Hayden Furlong.

Instructor: Robert John Dillman.

Visiting Lecturers: Joseph Chase, James Hain, George Knowlton Lewis, Leonard Solomon.

### *ES 181 Physical Geology U*

This course involves a study of the constitution of the earth together with an evaluation of the processes acting on and within it. Field trips are an integral part of the course. This course may be followed by either ES 182 or ES 192 in the second semester. 3 semester hours credit.

### *ES 182 Physical Geography UG*

In this course the characteristics, classification, origin, and distribution of the earth's physical phenomena such as atmosphere, climate, vegetation, and soils are studied as well as the distribution of populations. Emphasis is placed upon developing an understanding and appreciation of the relationships between the physical features of the earth and man. Field trips. Prerequisite: ES 181 (Physical Geology U). 3 semester hours credit.

### *ES 192 Historical Geology UG*

Historical Geology is a study of the major geological events on the earth as revealed by the structure and composition of the rocks and the evolution of the fossil record. Prerequisite: ES 181 (Physical Geology U). 3 semester hours credit.

### *ES 252 Geography of Anglo-America UG*

In this course the fundamentals studied in ES 200 are applied in the analysis of geographic regions of Anglo-America. This course is designed to give familiarity with the methods of securing, organizing, and presenting geographical data. Prerequisite: ES 181 (Physical Geology U), ES 182 (Physical Geography UG), or ES 200 (Fundamentals of Geography U). 3 semester hours credit.

### *ES 301 Astronomy UG*

The major concern of this course is a study of the earth, moon, planets, sun, and other stars and galaxies. Emphasis is placed on such topics as the new findings of radio astronomy and the uses of earth satellites. Day and evening observations. 3 semester hours credit.

### *ES 303 Meteorology UG*

This is an introductory course in which atmospheric behavior, weather elements, and cyclonic phenomena such as hurricanes, tornadoes, and frontal circulations are analyzed. 3 semester hours credit.

### *ES 304 Climatology UG*

A study will be made of climatic elements and climatic controls and their application to the analysis of climatic regions of the world. Prerequisite: ES 303 (Meteorology UG). 3 semester hours credit.

### *ES 305 Oceanography (bio-chemical) UG*

This course will present a survey of marine biology and chemistry with emphasis on current research as well as past achievements in each field. 3 semester hours credit.

### *ES 306 Oceanography (Physical) UG*

A study will be made of ocean water temperature, circulation, shore lines, ocean basins, and mineral resources. 3 semester hours credit.

### *ES 315 Cartography UG*

This course aims to train students in the graphic presentation of geographic data, and acquaint them in the latest techniques of map construction. 3 semester hours credit.

### *ES 352 Urban Geography UG*

The geographic aspects of the city, including location, function, land use patterns, and tributary areas, will be analyzed. Prerequisite: ES 181 (Physical Geology U), ES 182 (Physical Geography UG), or ES 200 (Fundamentals of Geography U). 3 semester hours credit.

### *ES 362 Economic Geography UG*

In this course the mineral, plant, and soil resources of the world are studied with emphasis on their location and present and potential



uses. Manufacturing regions and the transportation systems that link the various regions of the world are also considered. Prerequisite: ES 181 (Physical Geology U), ES 182 (Physical Geography UG), ES 200 (Fundamentals of Geography U), or permission of the Instructor. 3 semester hours credit.

#### *ES 372 Mineralogy UG*

This course will present an introduction to crystallography followed by the determinative and physical mineralogy of important rocks and ore minerals. Prerequisite: A knowledge of chemistry. 4 semester hours credit.

#### *ES 462 Geology of North America UG*

Each of the physiographic provinces of North America will be studied in terms of their geomorphology and structural relationships. Prerequisite: ES 181 (Physical Geology U). 3 semester hours credit.

#### *ES 464 Economic Geology UG*

This course considers the geochemical and physical processes that produce metallic and non-metallic mineral deposits. Prerequisite: ES 181 (Physical Geology U). 3 semester hours credit.

#### *ES 475 Paleontology UG*

Topics covered will be a survey of the fossil record introduction to invertebrate and vertebrate paleontology and paleobotany. Emphasis will be placed on the most important phyla. Prerequisite: ES 181 (Physical Geology U), ES 192 (Historical Geology UG). 3 semester hours credit.

#### *ES 483 Structural Geology UG*

This course consists of a study of the architecture of the earth as related to rock structures, their origin, and description. Prerequisite: ES 181 (Physical Geology U). 3 semester hours credit.

#### *ES 484 Geomorphology UG*

Emphasis will be placed on a study of the relationships between gradational and tectonic forces and the resulting surface configuration of the earth. Prerequisite: ES 181 (Physical Geology U), ES 182 (Physical Geography UG). 3 semester hours credit.

#### *ES 502 Conservation of Natural Resources G*

This course is devoted to a detailed examination of the occurrence, exploitation and conservation of natural resources, including min-

erals, soils, water, forests, grasslands, fisheries, wildlife, recreation areas and scenery. Public and private conservation policy is examined against current technical and philosophical developments. Emphasis is placed on conservation in the United States. Prerequisite: ES 200 (Fundamentals of Geography U), and ES 252 (Geography of Anglo-America UG), or ES 181 (Physical Geology U) and ES 182 (Physical Geography U) and permission for undergraduates. 3 semester hours credit.

*ES 504 Geography of USSR G*

The geography of environment, resources and population are studied in relation to history and the present economic and social system of the Soviet Union. Prerequisite: ES 200 (Fundamentals of Geography U), and ES 252 (Geography of Anglo-America UG), or ES 181 (Physical Geology U) and ES 182 (Physical Geography UG), and permission for undergraduates. 3 semester hours credit.

*ES 581, 582 Investigating the Earth--Earth Science Curriculum Project G (NSF)*

An introduction to the teaching of earth science at the secondary school level using the methods and materials developed by the Earth Science Curriculum Project. This course is open only to participants in the National Science Foundation In-Service Institute. 3 semester hours credit each semester.

## DEPARTMENT OF MATHEMATICS

Associate Professor Joseph Biggi Chiccarelli, Chairman

Associate Professor and Academic Dean: Lee Francis Harrington

Associate Professors: Robert Joseph Bent, Robert Elwood Lemos, Henry Myron Mailloux

Assistant Professors: Murray Abramson, Walter Joseph Gleason, Michael Makokian, Donald Clayton Simpson.

Instructors: Frank Joseph Lambiase, Robert Francis Sutherland

*MA 100 Precalculus Mathematics U*

The real number system, mathematical induction, elementary functions and their graphs, the trigonometric functions and analytic trigonometry, complex numbers, theory of equations, analytic geometry of the line and conic sections. 4 semester hours credit.

*MA 106 College Mathematics II U*

Algebraic functions, exponential and logarithmic functions, trigo-



nometry, theory of equations, sequences and series. 3 semester hours credit.

*MA 150 Modern Analytic Geometry UG*

Coordinates, functions, graphs, the geometry of the straight line and conic sections, polar coordinates, vectors, planes, quadric surfaces, applications. 3 semester hours credit.

*MA 210 Calculus I UG*

Course includes inequalities, relations, functions, limits and continuity, the differentiation of algebraic functions, with applications to geometry, maxima and minima. Prerequisites: MA 106 (College Mathematics II U) or MA 100 (Precalculus Mathematics U); MA 150 (Modern Analytic Geometry UG), (concurrently), or equivalent. 3 semester hours credit.

*MA 211 Calculus II UG*

This course is a continuation of Calculus I. The definite integral, differentiation and integration of the trigonometric and exponential functions, methods of integration, applications. Prerequisite: MA 210 (Calculus I UG), or equivalent. 3 semester hours credit.

*MA 212 Calculus III UG*

This course is a continuation of Calculus II. Methods of integration and applications, partial differentiation, infinite series, multiple integration, applications. Prerequisite: MA 211 (Calculus II UG), or equivalent. 3 semester hours credit.

*MA 301 Abstract Algebra I UG*

Introduction to the theory of rings, integral domains and fields through a study of integers, rational numbers, real numbers, complex numbers and polynomials; elementary group theory. 3 semester hours credit.

*MA 302 Linear Algebra I UG*

Vectors and analytic geometry of space, vector spaces, systems of linear equations, determinants, linear transformations, and matrices. 3 semester hours credit.

*MA 303 Linear Algebra II UG*

Linear transformations and matrices, the algebra of matrices, bilinear and quadratic forms, polynomial rings, characteristic values and vectors of linear transformations, similarity of matrices, applications. Prerequisite: MA 302 (Linear Algebra I UG), or equivalent. 3 semester hours credit.

*MA 310 Number Theory UG*

Development of the number system, the Euclidean Algorithm and its consequences, theory of congruences, number-theoretic functions, Diophantine equations, quadratic residues. 3 semester hours credit.

*MA 316 Differential Equations UG*

Ordinary differential equations of first and second order, linear differential equations with constant coefficients, the Laplace transform, applications. Prerequisite: MA 212 (Calculus III UG), or equivalent. 3 semester hours credit.

*MA 325 Foundations of Geometry UG*

A study of axiomatic systems, finite geometries, axiomatic Euclidean geometry, various non-Euclidean geometries, Klein's Erlangen program, transformation groups, invariant properties. 3 semester hours credit.

*MA 326 Projective Geometry UG*

The principle of duality, perspectivity, projectivity, harmonic sets, cross ratio, transformation groups, projective theory of conics. 3 semester hours credit.

*MA 331 Theory of Sets and Elementary Logic UG*

This course includes truth tables, rules of inference, method of proof, the algebra of sets and graphs of functions, cardinal numbers. Prerequisite: MA 211 (Calculus II UG) or permission of the Instructor. 3 semester hours credit.

*MA 332 History of Mathematics UG*

The development of elementary mathematics from ancient to modern times. 3 semester hours credit.

*MA 350 Fundamental Concepts of Mathematics UG*

An introduction to the most fundamental concepts of analysis, geometry, and algebra. Basic elements of set theory, a survey of the real and complex number systems, topics from number theory, permutations and combinations, plane analytic geometry, functions, sequences. 3 semester hours credit.

*MA 351 Modern Mathematics for Elementary School Teachers I UG*

The objective of this course is to provide minimum background in modern mathematics for teachers of grades 4,5,6. This course will be devoted to a study of base positional notation and arithmetic of



different bases, elementary set theory and logic, the real number system and its subsystems. 3 semester hours credit.

*MA 352 Modern Mathematics for Elementary School Teachers II UG*

This course is designed for additional background in modern mathematics for teachers who have successfully completed the Level I course or its equivalent. This course will be devoted to a continuation of the study of the number systems of arithmetic and their applications to algebra and informal geometry. Prerequisite: MA 351 (Modern Mathematics for Elementary School Teachers I UG). 3 semester hours credit.

*MA 353 Modern Algebra for Elementary School Teachers UG*

The integers, integral domains, and topics from number theory; equivalence relations and congruences; real numbers, complex numbers, and fields; polynomials, group theory. Prerequisite: MA 352 (Modern Mathematics for Elementary School Teachers II UG), or equivalent. 3 semester hours credit.

*MA 354 Modern Geometry for Elementary School Teachers UG*

Plane geometric figures, curves and surfaces, congruence, measures, coordinate geometry, parallelism and similarity, non-Euclidean geometries. Prerequisite: MA 352 (Modern Mathematics for Elementary School Teachers II UG), or equivalent. 3 semester hours credit.

*MA 355 Probability and Statistics for Elementary School Teachers UG*

Permutations and combinations, finite sample spaces, random variables, binomial distributions, statistical applications. Prerequisite: MA 352 (Modern Mathematics for Elementary School Teachers II UG), or equivalent. 3 semester hours credit.

*MA 356 Calculus for Elementary School Teachers UG*

Graphs and curves, functions, differentiation and integration of algebraic and transcendental functions, applications. Prerequisite: MA 352 (Modern Mathematics for Elementary School Teachers II UG). 3 semester hours credit.

*MA 421 Advanced Calculus I UG*

The course includes fundamental theorems on limits and continuity, properties of derivatives, theory of integration. Prerequisite: MA 212 (Calculus III UG), or equivalent. 3 semester hours credit.

*MA 422 Advanced Calculus II UG*

Course includes functions of several variables, partial derivatives,

multiple integrals, sequences and series. Prerequisite: MA 421 (Advanced Calculus I UG), or equivalent. 3 semester hours credit.

*MA 425 Probability Theory UG*

Permutations and combinations, calculus of probabilities, discrete and continuous random variables, expectation, elementary probability distributions, methods of estimation, sample spaces. Prerequisite: MA 212 (Calculus III UG), or equivalent. 3 semester hours credit.

*MA 426 Mathematical Statistics UG*

Fundamental statistical methods, tests of significances and estimation based on large or small samples, simple correlation, linear regression, statistical inference, sequential analysis. Prerequisite: MA 425 (Probability Theory UG), or equivalent. 3 semester hours credit.

*MA 430 Topology UG*

The elements of point set topology: closed sets and open sets in metric spaces, continuous mappings, connectedness, separation theorems and homotopy, applications. Prerequisite: MA 212 (Calculus III UG), or equivalent. 3 semester hours credit.

*MA 440 Complex Analysis I UG*

Analytic functions of a complex variable, differentiation and integration in the complex plane, Cauchy's theorems, infinite series, Laurent expansions, theory of residues. Prerequisite: MA 421 (Advanced Calculus I UG); MA 422 (Advanced Calculus II UG), or equivalent. 3 semester hours credit.

*MA 460 Integral Equations UG*

Integral equations of the first and second kind, Fredholm theory, systems of orthogonal functions, Hilbert Schmidt theory, applications. Prerequisite: MA 212 (Calculus III UG), or equivalent. 3 semester hours credit.

*MA 465 Applied Mathematics UG*

The partial differential equations of physics, orthogonal functions, integral transforms. Prerequisite: MA 212 (Calculus III UG), or equivalent. 3 semester hours credit.

*MA 490 Research Problems in Mathematics UG*

Special projects for advanced students desiring individual instruction in the methods of mathematical research. Prerequisite: Per-



mission of the department. Credit and hours to be arranged.

*MA 583 Number Theory G (NSF)*

A study of the Euclidean Algorithm and its consequences, unique factorization theorem, theory of congruences, Diophantine equations, number-theoretic functions, the theorems of Euler and Fermat, quadratic residues and the law of quadratic reciprocity. This course is open only to participants in the National Science Foundation In-Service Institute. 3 semester hours credit.

*MA 584 Introductory Analysis G (NSF)*

This course is designed to provide teachers with a solid foundation in concepts upon which the calculus rests. Topics to be studied will include: the structure of the real number system, relations, topics from analytic geometry, functions and their algebra, limits, continuity, differentiability, primitives and the definite integral. This course is open only to participants in the National Science Foundation In-Service Institute. 3 semester hours credit.

DEPARTMENT OF PHYSICS

Associate Professor Richard Frank Calusdian, Chairman

Professors: Felix Stanley Palubinskas, George Alexander Weygand.

Associate Professor: Raymond Lorenzo Blanchard.

*PH 243, 244 General Physics UG*

A calculus-based study of the phenomena of mechanics, heat, sound, electricity, magnetism, and light. Prerequisite: MA 210 Calculus I UG; MA 211 (Calculus II UG); MA 212 (Calculus III UG); MA 316 (Differential Equations UG), (Concurrently). PH 243 (General Physics UG) is prerequisite to PH 244 (General Physics UG). 4 semester hours credit.

*PH 385 Optics UG*

After careful study of geometric optics, the student will be introduced to the wave theory of interference, diffraction, polarization, and double refraction, and to the propagation of light in dispersion media. Laboratory projects are included as a part of this course. Prerequisite: PH 243, 244 (General Physics UG). 3 semester hours credit.

*PH 386 Nucleonics UG*

A study of nuclear instrumentation, the fission process and its ap-

plications, nuclear reactors, radiation shielding, radioactive waste disposal, and the application of nuclear technology to specific areas of the physical sciences. Prerequisite: PH 243, 244 (General Physics UG). 3 semester hours credit.

*PH 387 Modern Physics UG*

Atomic and nuclear structure, elementary particles, kinetic theory, relativity, quantum theory, introduction to quantum mechanics, and nuclear theory. Prerequisite: PH 243, 244 (General Physics UG). 3 semester hours credit.

*PH 388 Electricity and Magnetism UG*

Electrostatic and magnetic theory, direct and alternating current circuits, introduction to Maxwell's equations and radiation. Prerequisite: PH 243, 244 (General Physics UG). 4 semester hours credit.

*PH 389 Mechanics UG*

This course introduces the student to a vector treatment of mechanics: forces and moments; kinematics and dynamics of point masses and of rigid bodies; work, kinetic energy and potential energy; impulse and momentum; and mechanical vibrations. Prerequisite: PH 243, 244 (General Physics UG). 3 semester hours credit.

*PH 390 Research Problems in Physics UG*

This course provides the opportunity for advanced students to investigate individual topics not usually covered in the required curriculum. Prerequisite: Permission of the department. Credit and hours to be arranged.

*PH 391 Solid State Physics UG*

A discussion of modern ideas of the solid state as they apply to rheology, energy absorption and electrical and electromagnetic transmission. Prerequisite: PH 243, 244 (General Physics UG). 3 semester hours credit.

*PH 392 Electronics UG*

Fundamentals of semiconductor and vacuum tube electronics will be presented and supported with physical principles. Laboratory experiments will provide a working understanding of electronic measurements and basic electronic circuits. Prerequisite: PH 243, 244 (General Physics UG). 3 semester hours credit.

*PH 394 Quantum Mechanics UG*

This course treats the historical and physical basis of quantum me-



chanics. Among the topics included are: the wave nature of matter; the uncertainty principle; wave functions; operators; expectation values of dynamical observables; the Schrodinger Equation. These concepts will be applied to the electron, the hydrogen atom, the multi-electron atoms and radiation. 3 semester hours credit.

*PH 397 Mathematical Physics UG*

The purpose of this course is to develop the students' ability to solve many of the types of problems arising in modern physics and chemistry. Topics to be included are: Linear differential equations, vector analysis, partial differential equations, Sturm-Liouville theory, Fourier series, Laplace transform, and orthogonal functions. 3 semester hours credit.

*PH 583 Physics of the Atom G (NSF)*

This course is a study of the atomic view of matter and radiation. Among the topics covered are: the kinetic theory of gases, theory of the electron, Bohr's theory of the atom, many electron atoms, theory of molecules and solids, classical theory of radiation, the quantum theory of radiation and spectra, and the theory of relativity. This course is open only to participants in the National Science Foundation In-Service Institute. 3 semester hours credit.

*PH 584 Physics of the Nucleus and Elementary Particles*

This course is a study of the nucleus and the relationship of the elementary particles. Among the topics covered are: nuclear structure, radioactivity, nuclear reactions, nuclear accelerators, conservation laws, symmetry and invariance principles, unified view of the elementary particles, and cosmic rays. This course is open only to participants in the National Science Foundation In-Service Institute. 3 semester hours credit.

## **DIVISION OF PROFESSIONAL EDUCATION**

Dr. Stanley Luther Clement, Director

The Division of Professional Education is comprised of the Departments of Education, Instructional Media, Health and Physical Education for Men, Health and Physical Education for Women, and Library Science.



## DEPARTMENT OF EDUCATION

Professor Stanley Luther Clement, Chairman

Professor and Dean of Undergraduate Studies: Vincent James DiNardo

Professor: Robert Douglas MacCurdy

Associate Professors: John Peter Deasy, Philip Ryan Dooley, Ruth Mary Gamson, Paul Francis Kelley, Evelyn Ruth Lindquist, Rita Kohler Nadal, Mercia Carter Pike, Doris Margaret Sprague, Dorothy Sherman Wood.

Assistant Professors: Anthony Vincent DeLeo, Henry Joseph Fanning, Jr., Margaret Eleanor Farrell, James Frank Francis, John Joseph Kent, Vincent James Worden.

Instructors: Mary Leota Marks, Wayne Richard Phillips, Gerald Joseph Thornell.

Visiting Lecturers: Barbara Phillips Aalto, William Joseph Casey, John Donato DiSanto, Lawrence Alexander Doyle, Robert Edmund Fitzgibbons, Robert Payne Fox, Murray Bernard Gerber, David Stanley Goodenough, Richard Evariste Gray, Williston Holbert, Kenneth Leo Johnson, Kenneth Paul Jubett, Grace Doris Keenan, Archibald Kelly, John Bernard Kelly, Joseph Kunces, Robert Leo Lavoie, Edward Joseph Lynch, Charles Manos, Bernard James McKearney, Trueman John Menadue, Robert O'Donnell, Vernon Eugene Oldham, Joseph Francis Plouffe, Francis Patrick Powers, Robert Prendergast, William Quinlan, John Gammons Read, John Marshall Shaw, Roderick William Smith, Elizabeth Ann Tormey.

### Administration

#### *ED 560 Principles and Practices in School Administration G*

A basic introduction to the principles of school administration. Administration will first be examined as a profession. The administrative process will be developed and used in class work and course projects. Administrative problems will be identified in the areas of program, pupil administration and services, facilities and equipment, personnel and public relations. Guiding principles will be established for the solutions of these problems with emphasis also on common practices, trends, proposals and issues. The course provides the foundation and is a prerequisite for further courses in administration. 3 semester hours credit.

#### *ED 561 Elementary School Administration G*

The emphasis in this course will be upon the application of the general principles of school administration to the solution of the

specific problems of the elementary school. Emphasis will be placed on the areas of elementary program, plant, services, pupil control and accounting, personnel and public relations. Prerequisite: ED 560 (Principles and Practices in School Administration G). 3 semester hours credit.

#### *ED 562 Secondary School Administration G*

The emphasis in this course will be upon the application of the general principles of school administration to the solution of the specific problems of the secondary school. Emphasis will be placed on the areas of secondary program, pupil administration, plant and facilities, personnel and public relations. Prerequisite: ED 560 (Principles and Practices in School Administration G). 3 semester hours credit.

#### *ED 563 Personnel Administration in Public Schools G*

A treatment of the nature, development, and importance of personnel administration and the general principles, preparation and procedures for its implementation. Special topics will include selection, orientation, assignment, supervision, rating and the establishment of the type of morale essential for the most effective teaching-learning atmosphere. Prerequisite: ED 560 (Principles and Practices in School Administration G). 3 semester hours credit.

#### *ED 564 Public School Supervision G*

A fundamental course in school district supervision. The philosophy and function of supervision will be explored together with the roles of the various staff members responsible for supervision in a modern public school district. Consideration will be given to supervision at the various grade levels. Prerequisite: ED 560 (Principles and Practices in School Administration G), ED 561 (Elementary School Administration G) or ED 562 (Secondary School Administration G). 3 semester hours credit.

#### *ED 565 School Plant Administration G*

This course will be based upon a study of the financial support for public schools from local, state, and federal governments. School budgets, accounting, and purchasing procedures, distribution of supplies and services, transportation, food service, management and maintenance of the school plant will be given consideration. Prerequisite: ED 560 (Principles and Practices in School Administration G). 3 semester hours credit.

#### *ED 566 School Plant Administration G*

This course is intended for the specialist in school administration, the person who may ultimately go on to school district administra-



tion as an assistant superintendent, business manager, director of buildings and grounds or superintendent. The students will consider in depth the many factors involved in planning, construction, maintaining and administering the modern school plant. Prerequisite: ED 560 (Principles and Practices in School Administration G), ED 561 (Elementary School Administration G) or ED 562 (Secondary School Administration G). 3 semester hours credit.

*ED 567 Administration of the School Activity Program G*

The purpose of this course is to cause the prospective School Administrator to recognize the purposes of the existence of the activity program within the Secondary School; that the activity program plays an important part in the overall development of the secondary school student; that the program should be carefully planned and executed in order to reap the maximum benefits. The course stresses the nature and function of student activities, the management of the activity program (with an administrative emphasis) and an analysis of the types of student activities. 3 semester hours credit.

*ED 568 Seminar in Problems of School Administration G*

This seminar is intended as a final professional course for administration majors. It will include study and analysis of current problems and issues in elementary and secondary school administration. Students will seek solutions to these problems through reading and research. Results will be presented to the class as a whole. Prerequisite: Twenty-four (24) credit hours must be completed toward the Master's Degree in School Administration including five (5) other Administration courses. Consent of major advisor is also necessary. 3 semester hours credit.

*ED 569 Legal Aspects of School Administration G*

A general overview of the legal rights, duties and liabilities of school personnel in general relationship to the school committee in Massachusetts. The course is intended for administrators, prospective administrators, and classroom teachers interested in the legal aspects of school committees, school property, teaching contracts, tenure, prevention of injury and accidents to students, relationships with parents, and a general survey of educational law cases at the local, state, and national level. 3 semester hours credit.

(See page 120 for additional listing.)

**Elementary Education**

*ED 340 Language Arts Methods and Materials in Elementary Education UG*

The new language-focused approach to English in the elementary school from the current findings of linguistics and the modern concepts of English grammar and usage will be stressed. Students will

be provided with strategies and ideas for putting theory into practice in teaching the skills and abilities of listening, speaking, and writing through imaginative, meaningful, creative approaches. Prerequisite: PY 200 (General Psychology U). 3 semester hours credit.

*ED 350 Methods and Materials in Elementary School Mathematics UG*

Through this course students become acquainted with the purpose and content of the contemporary elementary school mathematics curriculum. Emphasis is placed on a study of a wide variety of effective teaching procedures and instructional materials designed to meet the varying abilities within the elementary school classroom. Prerequisite: PY 200 (General Psychology U), MA 351 (Modern Mathematics for Elementary School Teachers I UG) or MA 107 (College Mathematics for Elementary Majors I) or Permission of the Instructor. 3 semester hours credit.

*ED 360 Methods and Materials in Elementary Music UG*

A treatment of the music program in the elementary grades including objectives, personnel, planning and the music course of study, pupil characteristics and meeting of individual differences, rhythmic activities, music reading, listening to music, creative music, and general procedures, equipment and materials. Prerequisite: MU 110 (Music Theory U). 3 semester hours credit.

*ED 362 Methods and Materials in Elementary Art UG*

Emphasis will be placed on the objectives of Art education in the public school curriculum; the role of the classroom teacher in carrying out this program; the nature of the developmental stages in the creative growth of children; the materials, processes, tools and teaching procedures which will foster this growth at the various grade levels; correlation of art with other subject fields; and evaluation of student progress. 3 semester hours credit.

*ED 370 Kindergarten Theory and Methods UG*

This course treats the philosophy, importance and development of pre-school education. Opportunity is given for the study of how children learn to live together and gain the experience which will lay the foundation for a feeling of adequacy in a group and the new role of school with rich experiences. Curriculum, methods, materials and facilities are examined and evaluated. Prerequisite: PY 200 (General Psychology U). 3 semester hours credit.

*ED 450 Elementary School Curriculum UG*

This course will include the roles of the administrators, the teacher, the parent and the child in the development of the changing curricu-



lum in the elementary school. Topics to be included are: the use of action research, in-service training, innovations for curriculum improvement, school organizations, team teaching, the non-graded school, individualized instruction, the revaluation of objectives, and democratic values. 3 semester hours credit.

*ED 452 Methods and Materials in Elementary Education UG*

This course is designed to present effective ways of vitalizing the teaching-learning process through challenging learning experiences which emphasize teacher-pupil planning, participation and evaluation. Resource persons, lectures, readings, reports, discussions, demonstration lessons, and displays of materials will be used to show what can be done to adapt the program and procedures of the elementary school to provide for individual differences in the teaching of content subjects. Prerequisite: PY 200 (General Psychology U). 3 semester hours credit.

*ED 460 Methods and Materials in Elementary Science UG*

This course will acquaint students with the goals of elementary science instruction and the methods of attaining these aims through such experiences as problem-solving, experimenting, observing, participating in field trips, and other essential activities. An examination will be made of new elementary science programs, current elementary science textbooks, films, and scientific equipment. Prerequisite: PY 200 (General Psychology U). 3 semester hours credit.

*ED 470 Methods and Materials in Elementary Social Studies UG*

Emphasis is placed on current trends in the social studies curriculum including the following topics: 1. objectives in social studies instruction; 2. child growth and development characteristics and their implications in teaching; 3. organization of the program; 4. creative pupil-teacher planning; 5. teaching techniques using varied instructional materials and procedures; and 6. evaluating child growth, methods and materials, and the achievement of objectives. Prerequisite: PY 200 (General Psychology U). 3 semester hours credit.

*ED 474 Methods and Materials in Primary Education UG*

The course is designed to promote insight into ways of teaching Primary-Grade Children taking into consideration the basic philosophy of their education and promoting an understanding that each child is a unique individual whose whole personality must be developed. Various phases of effective organization and management are discussed. Teaching school subjects will be stressed with emphasis being placed on what to teach, how to teach, the importance of skill development, the necessity for drill, and the use of practical cre-

ative techniques. Prerequisite: PY 200 (General Psychology U). 3 semester hours credit.

*ED 554 Seminar in Elementary Education G*

This course is intended to effect an integration among the following factors: 1. the graduate student's formal studies in the Master of Education program; 2. his knowledge of current research relating to curriculum, methods, materials, and evaluation in elementary education, and 3. his personal experience in teaching and education. Each student will make an extensive study of a significant problem in elementary teaching. Prerequisite: Completion of 24 hours toward the master's degree including 12 hours in Elementary Education. 3 semester hours credit.

Foundations in Education

*ED 420 Educational Measurement UG*

Included in this course is an examination of the development of the testing, measurement, and evaluation movement. A review and evaluation of tests and other evaluative methods needed for the measurement of mental maturity and educational growth in the student's field of specialization, and a study of elementary statistical procedures necessary for their interpretation, complete the course offerings. 3 semester hours credit.

*ED 480 Philosophy of Education UG*

Through research and discussion, students are expected to analyze and relate the metaphysical, epistemological, ethical, and social theories of philosophy to educational theories and practices. Prerequisite: PL 380 (Introduction to General Philosophy U). 3 semester hours credit.

*ED 520 Psychological Foundations of Education G*

This course involves an advanced systematic exploration of the various psychological principles related to teaching with special emphasis upon application of these principles in specific classroom situations. Special treatment will be given to social psychology, dynamics in interpersonal relationships and group processes, motivation, and discipline theory. Prerequisite: PY 200 (General Psychology U); and one of the following: PY 224 (Child Growth and Development U), PY 226 (Adolescent Psychology U), or PY 222 (Psychology of Learning UG). 3 semester hours credit.

*ED 522 Measurement of Intelligence - Binet G*

This course is designed to acquaint students with the administration, scoring and interpretation of the Binet Intelligence Test. The pur-



pose of this course is two-fold: (1) To expose students to the theories and functioning of Intelligence as set forth by Simon Binet, Lewis Terman and Maud A. Merrill; (2) To train students to become qualified Stanford-Binet Examiners. Prerequisite: PY 200 (General Psychology U); PY 222 Psychology of Learning UG); ED 420 (Educational Measurement UG). 3 semester hours credit.

*ED 524 Measurement of Intelligence – WAIS & WISC G*

This course is designed to acquaint students with the administration, scoring and interpretation of the Wechsler Intelligence Scales. The purpose of this course is two-fold: (1) To expose students to the theories and functioning of Intelligence as set forth by David Wechsler; (2) To train students to become qualified WAIS and WISC examiners. Prerequisite: PY 200 (General Psychology U); ED 520 (Psychological Foundations of Education G); ED 420 (Educational Measurement UG); ED 522 (Measurement of Intelligence - Binet G). 3 semester hours credit.

*ED 580 Philosophical Foundations of Education G*

Drawing upon the student's background in philosophy and philosophy of education, the course is designed to develop a close acquaintance with the major schools of western philosophy; i.e., realism, idealism, neo-Thomism, experimentalism, and existentialism, and to determine their relationship to current philosophies and practices. Prerequisite: PL 380 (Introduction to General Philosophy U), ED 480 (Philosophy of Education UG). 3 semester hours credit.

General

*ED 400 History of American Education UG*

This course is designed to provide the historical foundation by which the student may better understand the educational issues of the present and intelligently help plan future directions and goals. A study will be made of the origin and development of our American system of education at all levels. Changes in objectives, organization, control, support, curriculum and methods will be noted. The effect of various movements on the education program will be identified as to cause, characteristics, and influence. Current trends and tendencies for the future will be discussed. 3 semester hours credit.

*ED 401 Comparative Education UG*

A study will be made of the educational systems in other countries with emphasis on Europe. After an identification of the culture of a country, special topics will include: development, control, support, objectives, organizational pattern, curriculum, teachers, methods, special services and trends. International educational and cultural

programs will also be discussed. 3 semester hours credit.

#### *ED 402 Team Teaching UG*

Emphasis will be placed on the nature, objectives, and development of the team teaching idea; its organization, team makeup, planning and instruction; student grouping and scheduling; facilities, materials and equipment; instruction and adaptation to existing conditions; the ungraded school; and team teaching and the community. 3 semester hours credit.

#### *ED 403 Professional Ethics UG*

The heart of this course will be the ethical principles upon which the Education Profession is based, those standards which should guide professional service in a moral not legal sense. Emphasis will include: criteria of a profession as applied to teaching; responsibility and privileges of the profession; codes of ethics - nature, formation, interpretation, application, and enforcement; professional organizations - purpose, organization and achievements; relation of the professional role to private life; and interpretation of specific current situations including those suggested by class members. 3 semester hours credit.

#### *ED 404 Fundamentals of Data Processing UG*

Introduction to the theory and methodology of electronic data processing. Development of the history and classification of computers. Examination of machine and symbolic languages, storage methods, peripheral equipment and numbering systems. Emphasis on the role of the computer in the educational systems of today. 3 semester hours credit.

#### *ED 492 Supervised Teaching in the Public Schools U*

This period provides opportunity in the public schools for continuous supervised experiences in all classroom activities under regular classroom conditions. Experience is gained in the study of individual differences, teaching techniques, and classroom management. Supervision is given by the classroom teacher and by members of the college faculty. Students are expected to carry a minimum responsible teaching load equal to 50% of the regular classroom teacher's assignment. Prerequisite: This course (experience) is open only to students matriculated for a degree at the State College at Bridgewater (B.S., A.B. or M.Ed.). M.Ed. Candidates must have completed: 1. all other prerequisite courses; 2. 24 semester hours of appropriate graduate requirements for the degree; and 3. 18 semester hours in the subject matter area in which the Student Teaching is to be done. These hours are to be approved by the Director of Teacher Education. 6 semester hours credit.



### *ED 500 Research and Evaluation G*

This course will stress the use of appropriate research methods in the selection and evaluation of data. It is designed to aid the graduate student in the preparation and understanding of research reports. Major areas of emphasis will include the nature of and criteria for evaluating research, library techniques and resources, selection and delimitation of problems, appraisal of research literature, documentation, organization and format of a report, necessary statistical concepts and methods of research. The student will be expected to demonstrate his knowledge of these in a term research study. Prerequisite: ED 420 (Educational Measurement UG). 3 semester hours credit.

### *ED 501 Master's Thesis G*

3 semester hours credit.

## Guidance

### *ED 430 Principles and Practices in Guidance UG*

This is an introductory course designed to provide the student with an understanding of the need, meaning, and scope of guidance services. The principles and practices involved in the following guidance areas will be considered: introduction and philosophy of guidance; understanding the individual and his needs; essential orientation activities for the student; collection, recording, and evaluating data; interviewing and counseling; guidance through group activities; placement and follow-up activities; organization and evaluation of guidance. The emphasis of the course will be upon the role of the classroom teacher in the guidance program. 3 semester hours credit.

### *ED 530 Counseling Theory and Practice G*

Emphasis will be placed on the principles of counseling and the application of the basic techniques to the counseling process. The roles of both guidance personnel and teachers will be stressed. Case studies will be used and situational problems discussed. Prerequisite: ED 430 (Principles and Practices in Guidance). 3 semester hours credit.

### *ED 531 Organization and Administration of Guidance Programs G*

This course will deal with the procedures for creating and operating a program of guidance services as part of the public school education. It will identify the basic principles and practices common to all guidance programs and show how guidance services and activities are, and can be, adapted, organized, and administered to serve school pupils, their parents, teachers, and administrators. The course will give special attention to immediate NDEA Act applica-

tions. Prerequisite: ED 430 (Principles and Practices in Guidance UG). 3 semester hours credit.

#### *ED 532 Practicum in Counseling G*

Emphasis will be on the practice of counseling. Multiple counseling sessions using tapes will be emphasized. Supervised observation will be included to help measure individual assessment of growth and competence. Prerequisite: ED 530 (Counseling Theory and Practice G). 3 semester hours credit.

#### *ED533 Psychological Tests in Guidance G*

The aim of the course is to introduce the school counselor to the basic principles of psychological testing and to study, in depth, the most commonly used instruments for assessing intelligence achievement, aptitude, interest and personality. Prerequisite: ED 430 (Principles and Practices in Guidance UG); ED 420 (Educational Measurement UG). 3 semester hours credit.

#### *ED534 Occupational and Educational Information G*

This course is offered for teachers and counselors as a study in the methods of presenting occupational and educational information in formal guidance programs and in units on vocations in subject matter classes. Consideration will be given to an evaluation of materials and techniques in terms of practical use. Materials of educational information will be considered and collected. The student will begin an individual library of educational information and will construct a 10 lesson unit of educational information to be placed in a subject matter class. Other assignments will explore individual situations and include recommendations in the light of acceptable methods. Prerequisite: ED 430 (Principles and Practices in Guidance UG). 3 semester hours credit.

#### *ED 535 Principles and Practices in Placement G*

This course will consider the methods and materials used in placement in educational programs beyond secondary school, in public schools grades 1-12, in private schools, and in pre-primary schools. Students will evaluate the various approaches to in-school needs of children and specifically the role of guidance personnel as members of the educational team in the satisfactions of these needs. Objective testing programs as they pertain to academic placement will be considered. Prerequisite: ED 430 (Principles and Practices in Guidance UG). 3 semester hours credit.

### **Reading**

#### *ED 330 Teaching of Reading in the Elementary School UG*

This course will consider how reading instruction is initiated, how



basic reading abilities are developed, and how growth in voluntary reading is encouraged. The essentials of an effective developmental reading program will be examined with attention to organizing reading groups and evaluating progress. Prerequisite: PY 200 (General Psychology U). 3 semester hours credit.

*ED 331 Developmental Reading in the Secondary School UG*

This course will provide a study of the techniques used to develop reading skills in the secondary school, and evaluation of the modern reading materials available, a study of techniques used to analyze students' reading needs and a survey of administration of reading programs in the secondary school with implications for teachers as well as administrators. The course is designed for all who wish fresh viewpoints in initiating, organizing and updating a reading program. Prerequisite: PY 200 (General Psychology U). 3 semester hours credit.

*ED 332 Diagnosis and Correction of Reading Difficulties UG*

In this course, students will learn to (1) analyze the reading difficulties of elementary and secondary pupils, (2) provide appropriate remedial instruction and (3) evaluate pupil progress under such instruction. Consideration will also be given to the causes of reading difficulties and the problems encountered in organizing remedial programs. Prerequisite: ED 330 (Teaching Reading in the Elementary School UG) or ED 331 (Developmental Reading in the Secondary School UG); and permission of the Instructor. Well qualified applicants may be admitted without ED 330 or ED 331. 6 semester hours credit.

*ED 543 Improving Reading Instruction G*

This course will undertake an examination of current and evolving practices and programs in the teaching of reading. Teachers, reading specialists, and administrators will be helped to develop practical plans for insuring that their own reading programs successfully meet the needs of all their students. Prerequisite: ED 330 (Teaching of Reading in the Elementary School UG). 3 semester hours credit.

*ED 544 Seminar in Reading and Language G*

The primary concern of this course will be the application of research methods and findings to the improvement of all aspects of reading and language instruction. Each student will make an extensive study of a significant problem related to the teaching of oral expression, written expression, reading, spelling or handwriting. Prerequisite: ED 330 (Teaching Reading in the Elementary School UG). 3 semester hours credit.

## Secondary Education

*ED 312 Teaching Social Studies in the Secondary School UG*

*ED 314 Teaching English in the Secondary School UG*

*ED 319 Teaching Science in the Secondary School UG*

*ED 322 Teaching Mathematics in the Secondary School UG*

*ED 324 Teaching Modern Foreign Language in Secondary School UG*

The above courses are comparable in purpose and design, differing as application is made to a particular subject field. The main emphasis will be on the establishing of objectives, the choosing of appropriate content, procedures, and materials, and the techniques of planning necessary to accomplish the objectives. Other topics will include classroom organization and management, meeting of individual differences, evaluation and reporting of progress, and recent developments in methodology and subject matter. Prerequisite: PY 200 (General Psychology U). 3 semester hours credit for each course.

*ED 440 Methods and Materials in Secondary Education UG*

Emphasis will be placed on the analysis of the theory and practice of teaching in the modern secondary school. Topics will include: the learning process--principles and application; establishing of objectives; classroom organization and management; meeting individual differences; evaluation and reporting progress; correlation between subject matter fields; and recent developments in methodology and subject matter. This course is designed primarily for those interested in gaining certification, undergraduates with no teaching experience, and prospective teachers who have been away from the classroom for many years. Students currently employed as teachers are strongly advised to select a methods course in their particular discipline. Prerequisite: PY 200 (General Psychology U). 3 semester hours credit.

*ED 443 Secondary School Curriculum UG*

Emphasis is placed on the purposes of modern secondary school education and the essential features of the curriculum needed to implement them. Topics will include: organization, historical development, factors affecting trends and issues, core curriculum, planning curriculum guides and organization; and participation in curriculum evaluation and revision. 3 semester hours credit.

## Special Education

*ED 410 Introduction to Special Education UG*

This is a survey of all phases of special education emphasizing the



program for mentally and physically handicapped children, for emotionally disturbed children and for the academically talented. The slow learner and the perceptually handicapped will receive consideration. 3 semester hours credit.

#### *ED 411 Methods and Materials in Special Education UG*

In this course special emphasis will be placed on the philosophy, the general and specific aims, the identification and classification, and the curriculum development of the educational program for retarded children. The planning, developing, and guiding of pupil experiences will help to attain the desired pupil outcomes through the functional application of subject matter. 3 semester hours credit.

#### *ED 412 Organization and Administration of Special Education UG*

The purpose of this course is to meet organizational and administrative problems in the implementation of a comprehensive special education program especially for the mentally retarded. A complete study of the psychological services, the classroom, the teaching personnel, the required individual pupil case summary data, the curriculum, and the classroom management will be included. Other aspects of special education will receive consideration. Prerequisite: ED 410 (Introduction to Special Education UG). 3 semester hours credit.

#### *ED 413 Industrial Arts in Special Education UG*

This course gives the teacher the opportunity to work with the various materials necessary for an adequate handwork program. The planning procedure, the necessary equipment, and the successful operation of such a program will be studied to insure the necessary goals being achieved. The requirements for certification of the special class teacher for teaching the mentally retarded are included. 3 semester hours credit.

#### *ED 414 Domestic Arts in Special Education UG*

In this course emphasis will be placed upon teaching the basic principles of nutrition for planning, preparing, and serving meals for the individual and family; principles of management in the home; management of money; time, and labor-saving equipment, simple home nursing and child care and aesthetic experience in personal appearance and clothing. 3 semester hours credit.

#### *ED 415 Methods and Materials for the Gifted Learner UG*

The purpose of this course is to understand the needs of the academically talented with basic philosophy which will help them to

realize their potential. Emphasis will be placed on identification, classification, evaluation, curriculum, methods and materials for the special classroom. The problems of motivation, of underachievement, and of creativity will be stressed. Prerequisite: PY 200 (General Psychology U). 3 semester hours credit.

*ED 416 Teaching the Slow Learner UG*

This course is designed to give practical suggestions to the teacher for meeting the needs of the slow learner. Emphasis is placed upon identification and classification, methods and materials, procedures, social and vocational adjustment and the structuring of the modern curriculum to provide adequate education for the slow learner. Prerequisite: PY 200 (General Psychology U). 3 semester hours credit.

*ED 417 Methods in Teaching Emotionally Disturbed Children UG*

Emphasis will be on methods and materials necessary for a successful educational program for emotionally disturbed children including classroom facilities, curricula learning experiences and management. Prerequisite: ED 410 (Introduction to Special Education UG), and PY 200 (General Psychology U). 3 semester hours credit.

*ED 418 Etiology, Dynamics, and Treatment of Emotional Disturbance in Children UG*

Emphasis will be on the complete background of the causes, characteristics, and behavioral aspects of emotionally disturbed children including the new syndromes resulting from recent research. Study will be made of mental health clinics as the primary community resource involved. Prerequisite: PY 200 (General Psychology U). 3 semester hours credit.

DEPARTMENT OF HEALTH AND PHYSICAL EDUCATION FOR MEN

Associate Professor Harry August Lehmann, Chairman

Associate Professor: Edward Carl Swenson.

Assistant Professor: Thomas Allen Knudson.

Instructors: Edward August Braun, David Paul Deep, Peter Mazzaferro.

*HPE 424 Problems in Physical Education and Athletics UG*

Course content includes the recognition, discussion and systematic analysis of controversial issues and problems. Among topics to be studied are the optimum use of facilities, ethical practices, financing the program, relationships with non-school programs, interscholastic athletic competition below high school level, youth fitness, crowd control, injury prevention, program evaluation, and community organization for health, physical education and recreation. Particular



attention is given to problems suggested by class members. 3 semester hours credit.

#### *HPE 425 Care and Prevention of Athletic Injuries UG*

A basic course to illustrate the methods of prevention, correction, care and treatment of athletic injuries. Training and conditioning programs will be studied. Class time will be devoted to lectures, discussions, and practical work. Taping and use of physical therapy equipment will be covered in the course content. 3 semester hours credit.

#### *HPE 426 Management of Athletics UG*

This course involves the study of athletic policies and regulations on the local and state levels, administrative plans, contest management, the purchase and care of equipment, athletic awards, finance and budget, athletic facilities, scheduling, public relations, the intramural program, and trends in interscholastic athletics. Lectures, reading, class discussions, and written assignments will be directed toward the enrichment of the athletic programs in the school systems represented. 3 semester hours credit.

#### *HPE 427 Public Relations in Physical Education UG*

This course is designed to develop competencies in the area of public relations specifically for those engaged as teachers of physical education, coaches and athletic administrators and for those preparing for such positions. The course content will include the study of a public relations philosophy, the unique public relations aspects of the physical education program, specific and practical techniques, relationships with media personnel, relationships with the various internal and external publics, and the planning and preparation of annual reports, speeches, brochures, displays, demonstrations and press releases. Course projects are planned to help upgrade the public relations programs in the departments and schools represented. 3 semester hours credit.

#### *HPE 434 Foundations of Physical Education UG*

This course is concerned with the nature and scope of physical education. The course content includes the scientific foundations of physical education; the objectives and how they are best achieved; the philosophy of physical education as a part of total education; the relationship of physical education to health, recreation, camping and outdoor education; the history of physical education; the qualifications and responsibilities of physical education personnel; and challenges and problems facing the physical education profession. The latest available materials and information from the President's Council on Physical Fitness will be included. 3 semester hours credit.

*HPE 435 Organization and Administration of Intramural Sports*

Current practices, ideas, and methods of organizing and administering a program of intramural sports at all age levels. 3 semester hours credit.

*HPE 436 Techniques in Coaching Football and Basketball*

Discussion of offensive and defensive trends; methods of teaching of individual skills; organization and promotion of football and basketball. 3 semester hours credit.

DEPARTMENT OF HEALTH AND PHYSICAL EDUCATION FOR  
WOMEN

Professor Mary Josephine Moriarty, Chairman

Associate Professor: Mary Lou Thornburg.

Assistant Professors: Patricia Ann Phillips.

Instructors: Ann Oldham Coakley, Regina Mary Gross, Virginia Lee Hogg, Shirley Jane Krasinski, Marjorie Atwood Rugen, Hazel Margaret Schopp, Johanne Smith, Cal Ann Wolfram.

*HPE 349 Methods of Teaching and Calling the Modern Square Dance* UG

The modern square dance will be analyzed as to its make-up and place in the physical education curriculum. Basics, included in the modern square dance will be presented in progression. The techniques of teaching will be emphasized as students are taught to perform these fundamentals. As dances are not memorized in the modern square dance, the method of learning to call individual basics will be stressed and emphasis placed on the mechanics and function of each. Time will be spent on phrasing, timing, and voice. An analysis of square dance music as it relates to figure composition, as well as a simple method of composing dances, will be made. 3 semester hours credit.

*HPE 360 Organization of Girls' Intramural and Extramural Activities* UG

Concerned with the construction of a balanced program of co-curricular activities based upon sound educational objectives implemented with the current standards and guidelines established for the junior and senior high school girl. The role of the coach and officials are coordinated to bring about the best of educational experience for the participant. 3 semester hours credit.

*HPE 370 The Theory and Practice of Physical Education in the Elementary School* UG

Content and organization of physical education throughout the elementary grades. Emphasis will be on preparation and teaching tech-



niques for the classroom teacher, specialist and supervisor. A laboratory experience will be a required part of the course. 3 semester hours credit.

*HPE 380 Introduction to Recreation UG*

Covers the history of recreation from colonial days to the present. Particular emphasis is placed on the cultural views and their relationship to recreation. The various types of recreation presently seen and the impact of leisure time on the future will also be discussed. 3 semester hours credit.

*HPE 382 Programs in Recreation UG*

This course deals with the fundamental aspects of program planning in Recreation. The programs of various agencies, both public and private, will be discussed. Items given special attention are: Senior Citizens Programs, Physical and Mental Retarded Programs and Pre-primary Programs. 3 semester hours credit.

*HPE 385 Nutrition and Fitness UG*

The course will include information concerning fundamentals of nutrition, the relation of nutrition to cultural patterns, to dental health and to tal health and fitness. Current nutrition problems will be discussed. Recent research in this area will be investigated. The New England Dairy and Food Council will assist in planning the course outline, will provide approved films, and suggest speakers. 3 semester hours credit.

*HPE 390 Philosophy and Principles of Physical Education UG*

Discussion of facts and principles that serve to formulate a philosophy of physical education. Study of the relationship of physical education to general education. 3 semester hours credit.

*HPE 395 Measurement and Evaluation in Physical Education UG*

The construction and use of written tests, skill tests, and other measurement devices in physical education; methods of administration and use of data. 3 semester hours credit.

*HPE 455 First Aid UG*

The content of this course will include lecture, discussions, and practices of first aid skills, leading to the completion of the Red Cross Standard and Advanced First Aid Certificates. The objectives will be to encourage good safety practices and attitudes; to prepare the individual to give first aid care to himself, his family and others. 3 semester hours credit.

*HPE 465 School Health Program UG*

This course is designed to acquaint the elementary classroom teacher with the areas of the school health program: health services, health education and healthful school living. Emphasis will be placed on the objectives and goals of health education within and throughout the total school curriculum, organization of the school health services and basic issues and problems in school health. 3 semester hours credit.

*HPE 475 Community Health Education UG*

This course is concerned with the history and development of public health programs, the relationship of health departments--local, state, and federal, public and private agencies, and the school health program. Problems and principles of the community health programs based on local needs will be considered. The course is designed for classroom teachers, health specialists, and others interested in community health. Prerequisite: a course in personal health education. 3 semester hours credit.

*HPE 495 Health Problems UG*

Current health problems related to the school and community will be presented. The school's responsibility for education in these areas will be discussed. 3 semester hours credit.

DEPARTMENT OF INSTRUCTIONAL MEDIA

Professor Henry Rosen, Chairman

Assistant Professor: Thomas Lee.

*AV 450 Techniques and Media of Audio Visual Instruction UG*

This course is designed to improve instruction through the appropriate use of new techniques and media of communication and instruction in the classroom and/or in industry. The student learns the operation, care and repair of equipment, and sources of materials according to his personal needs. In addition, he experiments with lesson planning and application of techniques and media, and makes certain materials for efficient and applicable presentation in a teaching-learning situation. 3 semester hours credit.

*AV 452 Science of Photography in Education*

This course is designed to give instruction in the basic philosophy, scope, educational planning, and techniques of preparation of photographic instructional materials. Preparation of color and black and white slides, stills, filmstrips, transparencies for overhead projec-



tion, and photography and darkroom techniques will be taught. 3 semester hours credit.

*AV 453 School Public Relations UG*

This course is designed to acquaint the teacher and the administrator with the responsibility of the school to the public. It is the purpose of this course to teach the necessity for a well-informed public to foster good school public relations. All necessary media will be discussed; radio, television, newspapers, magazines, school publications, teacher-parent and administrator-teacher-parent relationships. 3 semester hours credit.

*AV 455 Projectual Technology for Instruction UG*

This course is designed to give basic instruction in the philosophy, scope, educational planning, and techniques of the preparation and use of projectuals for instruction and education. The student will learn the graphic arts skills necessary for the preparation of overhead masters. He will also learn the techniques of exposing and developing overhead transparencies by the Diazo method utilizing equipment found in the school adaptable to this method. Students will also prepare materials by color lifting, Thermofax, Tecnifax, A-O, and will learn the basic techniques for copying 2 x 2 slides and layout procedures for filmstrips, both black and white and color. 3 semester hours credit.

*AV 457 Advanced Photography Techniques UG*

This course is designed to give preparation in advanced theory of photography and the preparation of projected photographic materials; slides, stills, filmstrips, motion pictures, and overhead transparencies. Advanced techniques of darkroom usage and salon printing will be an integral part of the course. 3 semester hours credit.

DEPARTMENT OF LIBRARY SCIENCE

Associate Professor Beatrice Irene Bouchard, Chairman

Associate Professor: Cora May Vining.

Librarian: Owen Thomas McGowan.

Cataloguer: Mabell Susie Bates.

Instructor: Olive Lee, Adeline Dupuy Oakley.

Visiting Lecturers: Martha Catherine Engler, Diane Gertrude Farrell, James Stewart Healey, Thomas Carol Higgins, Joan Sawyer Leland, Marion Jane Manthorne, Peter Simoglou.

*LI 215 Literature for Children UG*

This course covers the reading interests of children from pre-school years through the elementary grades with emphasis on: the contribution that reading can make toward the process of growing up; criteria for evaluation and analysis of children's books; types of books available today, considered in terms of the needs, interests, and abilities of children. Topics covered are: history of literature for children; illustrators; folk-tales; myths; modern fanciful tales; fiction; poetry; books in special fields, such as, history, science, travel. 3 semester hours credit.

*LI 225 Literature for Young Adults UG*

This course is a survey of literature for the adolescent designed for junior and senior high school teachers and librarians, and includes a brief history of the development of this literature, evaluation of publishers, and psychology of the adolescent reader. 3 semester hours credit.

*LI 404 Research and Evaluation in Library Science G*

This course is an introduction to general reference literature and to basic procedures in meeting reference problems. The principles and practices of book selection are discussed, and acquaintance is made with bibliographies, periodicals, and other informational aids. 3 semester hours credit.

*LI 435 School Library Administration G*

This course includes activities, techniques, and services, and they are related to the organizing and administering of a school library. 3 semester hours credit.

*LI 444 Principles and Practices of Book Selection UG*

This course includes criteria and policies in book selection for reader interest and curriculum enrichment, with emphasis on practical application and appraisal of bibliographic aids and current review practices. 3 semester hours credit.

*LI 445 Cataloguing and Classification: Introduction G*

This course includes cataloguing, classification, and processing of library materials as they are related to the school library. 3 semester hours credit.

*LI 450 The School Library, a Survey UG*

This course is designed for the classroom teacher. Emphasis is



placed on the use of the school library as a resource center. Principles, practices, new trends and materials as well as services for the classroom and teacher are discussed. 3 semester hours credit.

*LI 451 Storytelling UG*

The theory and practice of the art of storytelling. Emphasis on storytelling as a technique in cultivating appreciation of literature in children from kindergarten through grade 8. 3 semester hours credit.

*LI 462 School Library Legislation G*

This course will cover Federal, State, and Local School legislation as it applies to school libraries. 3 semester hours credit.

*LI 463 History of the Printed Book (1400-present day) G*

This course will include the printing process and its development; publication and the book trade; discussion and custodianship of rare materials and rare book collections. 3 semester hours credit.

*LI 464 Use of Non-printed Materials in the Library UG*

This course will emphasize the organization and administration of audio-visual materials; audio-visual media are considered in terms of their possible library usefulness; analysis and evaluation of alternative plans for meeting specific needs in the use of these media will be studied and problem-oriented. 3 semester hours credit.

*LI 466 Automation in the Library G*

This course will acquaint the student with the various facets of data processing in general, and how data processing applies to libraries in particular. Areas to be discussed will include: system analysis, cost evaluation, history of the machines, punched card equipment, the computer and its components, machine coding, and a brief examination of computer programming. The above will be accomplished by lectures, discussions, audio-visual materials and visits to libraries and concerns using the various types of equipment. No prior knowledge of machines or higher mathematics is required. 3 semester hours credit.

*LI 470 Research Problems in Library Literature G*

Special projects for advanced students desiring individual instruction in the methods of library research. Prerequisite: Permission of the department. Credit and hours to be arranged.

## DIVISION OF THE SOCIAL SCIENCES

Dr. Jordan Dominic Fiore, Director

The Division of the Social Sciences is comprised of the Departments and Areas of Economics, History, Political Science, and Public Administration.

## DIVISION OF THE BEHAVIORAL SCIENCES

Dr. Joseph Graessle Moore, Director

The Division of the Behavioral Sciences is comprised of the Departments of Anthropology, Psychology, and Sociology.



## DEPARTMENT OF ANTHROPOLOGY

Professor Joseph Graessle Moore, Chairman

### *AN 201 Introduction to Anthropology UG*

Origin of man. Physical evolution of man. Divisions of anthropology, cultural history and development. Basic concepts and methods for analyzing cultures. For graduate credit only if student has no undergraduate courses in anthropology and with the permission of the Instructor. 3 semester hours credit.

### *AN 205 Applied Anthropology: Culture Change in Developing and Underdeveloped Societies UG*

Examination of aspects of socio-cultural change, how it affects individuals, institutions and total cultures. Survey of Societies in Social Change situations. Prerequisite: AN 201 (Introduction to Anthropology UG). 3 semester hours credit.

### *AN 207 Introduction to Ethnological Theory UG*

A study of the various schools of ethnological theory together with methods, on each of the major schools of anthropology. Prerequisite: AN 201 (Introduction to Anthropology UG). 3 semester hours credit.

### *AN 209 The Peoples of the West Indies UG*

The study of a number of West Indian cultures involving all aspects of their culture together with cultural histories of the area. Prerequisite: AN 201 (Introduction to Anthropology UG). 3 semester hours credit.

## DEPARTMENT OF ECONOMICS

Associate Professor Daniel Joseph Noonan, Chairman

Assistant Professor: Douglas Lee Reed

### *EC 412 Comparative Economic Systems UG*

This course will include an analysis of the central economic problems which nations face in organizing economic activity, and a comparison of theories and institutions of capitalism and liberal socialism. Attention is given to the elements of strength and weakness found in the economic systems of various countries. 3 semester hours credit.

### *EC 413 Current Economic Problems UG*

Selected topics of current importance to the economy will be discussed. Reading will cover the contemporary economists and their recent economic proposals. 3 semester hours credit.

### *EC 422 The Economy of Soviet Russia UG*

Economic development of the Soviet Economy since 1917 is reviewed. Emphasis is placed on comparing the structure of their economy to that of the United States in regard to industry, agriculture, finance, and economic growth. Attention is given to their techniques of central planning. 3 semester hours credit.

### *EC 432 Principles of Investment UG*

An introduction to the mechanics of the stock market is presented. Various investment media are analyzed in regard to their desirability for individual investment portfolios. Some attention is also paid to the investment policies of selected financial institutions. 3 semester hours credit.



## DEPARTMENT OF HISTORY

Professor Jordan Dominic Fiore, Chairman

Commonwealth Professor: Annabelle McConnell Melville.

Professors: Ralph Samuel Bates, Jane Herrick, Stephanie Olga Husek.

Associate Professors: William Roswell Cole, Jr., Mary Noel, Maurice Rotstein.

Assistant Professors: Gerald Joseph Doiron, Donald Lundeen Keay, Donald Martin Jacobs, Benjamin Arthur Spence.

Instructors: Guy Chandler Clifford, Donald Martin Jacobs, Arthur Carlisle Oien.

### *HI 271 Introduction to Political Science UG*

This course provides a consideration of the definitions, theoretical foundations, and historical evolution of the principles of politics. The fundamental concepts in political science are examined: state, politics, law, and a general analysis of the place of government in modern society. N.B. Graduate credit will be given only if the student has had no undergraduate course in political science. 3 semester hours credit.

### *HI 272 American Government: The Federal System UG*

The Constitution of the United States is studied in detail as the basis of the Federal System. Topics of study include the development of the democratic process in America, the organization, power, procedures, function, services, and finances of the United States government. 3 semester hours credit.

### *HI 315 Nineteenth Century Europe UG*

This course is primarily concerned with the political, social, and intellectual development in the principal countries of Europe from the rise of Napoleon to the end of the century. 3 semester hours credit.

### *HI 316 Twentieth Century Europe UG*

This course is concerned with the causes of World War I, the course of the war and its aftermath. Political and social development and economic and ideological trends between the wars will be studied. World War II and post-war international relations will be covered. 3 semester hours credit.

*HI 317 British Political History Since 1603 UG*

This course concerns itself with the political development of England and the British empire from the accession of the Stuarts to the present day. Chronologically parallel to the survey of American history, the course stresses those factors which show the relationship of American-British development of modern times. Although primarily concerned with political factors, this survey does not exclude economic and social factors, particularly when the history of ideas is an issue. 3 semester hours credit.

*HI 318 British Empire and Commonwealth UG*

The development of British imperial policy and colonial problems from the eighteenth century to the present will be covered. Emphasis will be placed upon British-Indian relations, British imperialism in Africa, and the development and aims of the commonwealth as an institution. 3 semester hours credit.

*HI 333 Latin America: The Colonial Period UG*

This course is concerned with the development of Spanish and Portuguese civilization in Latin America in the period between the discovery of America and the successful revolts against Spain early in the nineteenth century. 3 semester hours credit.

*HI 334 Latin America: The National Period UG*

This course studies the Latin American countries from the time that they achieved independence to the present. Prerequisite: HI 333 (Latin America: The Colonial Period UG). 3 semester hours credit.

*HI 343 Ancient World to 336 B.C UG*

A study of prehistoric times, the early civilizations, and Greece from the Bronze Age to the death of Alexander the Great will be offered. 3 semester hours credit.

*HI 344 Roman History UG*

This course covers the history of Rome from ancient times to the reign of Justinian. Emphasis will be placed on the expansion of Rome from city to empire; the Hellenistic East; imperial administration and law; the origin and spread of Christianity; the decline of the Empire and the raids of the barbarians. 3 semester hours credit.

*HI 353 Historiography UG*

This course is concerned with the development of historical writing; the interpretation of history as illustrated by major historians; the



evaluation of historical writings through professional journals and the method of the book review. Membership in the course is limited to fifteen. Students are admitted with the consent of the Departmental Chairman and the Instructor. Students who complete this course are expected to elect HI 354 (Study and Writing of History UG). 3 semester hours credit.

#### *HI 354 Study and Writing of History UG*

This course is concerned with the development of the techniques of historical research and the preparation of papers which require these techniques. Varieties, analysis, and evaluation of source material will be stressed. Prerequisite: HI 353 (Historiography UG) or its equivalent. Students are admitted with the consent of the Departmental Chairman and the Instructor. 3 semester hours credit.

#### *HI 413 Contemporary Affairs UG*

Current sociological, economic, political, military, and scientific events are studied in publications and by means of television and radio broadcasts. The course attempts also an evaluation of the impact of science on contemporary society. 3 semester hours credit.

#### *HI 415 Modern Russia To 1917 UG*

Political, social and economic factors in the history of Russia from the end of the fifteenth century to the Revolution will be considered. 3 semester hours credit.

#### *HI 416 History of the U.S.S.R. UG*

The political, social, intellectual, and diplomatic development of Russia will be considered. Completion of HI 415 (Modern Russia To 1917 UG) and a survey in European history is recommended. 3 semester hours credit.

#### *HI 421 History of Massachusetts UG*

In this course the English background of the Pilgrims and Puritans, the Plymouth Colony and Massachusetts Bay settlements, Puritanism and the Massachusetts theocracy, Massachusetts in the Provincial Period, and the American Revolution will be studied. In addition to a consideration of political history, Massachusetts is studied in the national period in terms of constitutional development, population shifts, industrial growth, the effects of immigration, and the economic changes of the twentieth century. The organization of the state government and the constitution are also studied. Much use will be made of primary source materials in developing the course. 3 semester hours credit.

*HI 423 Social and Intellectual History of the United States to 1870 UG*

This course will consider the economic, social and cultural development of the American people to the period shortly after the close of the Civil War. The importance of the agricultural society, the development of a distinctly American character, and the spread of democracy will be studied. The life of the people rather than political events will be stressed. Lectures will be supplemented by slides, tapes, and recordings. A survey course in U.S. history would be helpful but it is not a prerequisite. 3 semester hours credit.

*HI 424 Social and Intellectual History of the United States Since 1870 UG*

This course traces the transition of American society from an agrarian rural base to an industrial and urban life. The triumph of a machine and scientific society with its implications in the economic, social, and intellectual life of the people will be considered. 3 semester hours credit.

*HI 430 Europe in the Middle Ages UG*

The period covered is from the fall of Rome to the Renaissance of the fifteenth and sixteenth centuries. Topics included are the German invasion, the rise of Christianity, the expansion of Mohammedanism, the development of the Byzantine state, the rise of nations, the conflict between church and state, and the cultural development of medieval Europe. 3 semester hours credit.

*HI 432 Modern European Imperialism UG*

This course considers the motives, methods, and results of imperialism in the nineteenth and twentieth centuries. The partition of Africa and the penetration of Asia will be considered as contracting phases in the expansion of Europe. 3 semester hours credit.

*HI 433 American Parties and Politics UG*

This course covers the history of the rise of political parties in America. Other topics included are pressure groups, public opinion testing the political functions of governmental administration units, nomination methods, the role of parties in international relations and foreign policy. 3 semester hours credit.

*HI 451A Seminar in American History and Historiography UG*

This course is designed primarily for senior history majors who contemplate doing graduate work in the field. The student will be introduced to the standard source materials for each major period in United States history, and to the various interpretations of ap-



proaches to historical problems, and will be encouraged to do some independent research in assigned areas. Admission is with the consent of the Departmental Chairman. 3 semester hours credit.

*HI 461A Far Eastern History UG*

This course deals primarily with the history of China and Japan during the last century. Some consideration is also given to the problems of the Philippines, Indonesia, Southeast Asia, India, and Australia. 3 semester hours credit.

*HI 471A International Relations UG*

Following a consideration of the basic factors in international relations, the development of the western state system, and the principles of balance of power, nationalism, and imperialism, the course covers the establishment of international organization in modern times and the post-war regional organizations. Each student makes a study of the contemporary international problems of a country or region. 3 semester hours credit.

*HI 473 Comparative Government UG*

The contemporary governments and politics of Great Britain and the major European powers will be examined. 3 semester hours credit.

*HI 481 United States Foreign Relations To 1898 UG*

This course will trace the history of the foreign relations of the United States from the American Revolution to the end of the Spanish-American War. Successful completion of a course in United States history is recommended. 3 semester hours credit.

*HI 482 United States Foreign Relations Since 1898 UG*

This course considers the background of the Spanish-American War, imperialism, the Open Door policy in Asia, Latin-American relations, the background and the results of World War I and World War II, and the diplomacy of the Cold War. 3 semester hours credit.

*HI 483 United States History: Progressive Era UG*

This course traces the rise of the Progressive movement in American history to the early 1920's as reflected in politics, government, and the social and intellectual life of the era. 3 semester hours credit.

*HI 484 Recent American History UG*

The development of modern America through the isolationism and boom of the 1920's, the Great Depression, the New Deal, World War

II, and the role of the United States in world affairs will be considered. 3 semester hours credit.

*HI 485 United States History: The Civil War UG*

The period of the American Civil War and Reconstruction is studied topically. Among the items to be considered are the background and causes of the war, the military and naval aspects, Civil War music, art, and literature, diplomacy of the Civil War, the home front in the war, the plans for reconstruction, and military reconstruction. Lectures will be supplemented by slides, motion pictures, and recordings. The completion of a course in American history before taking this course is recommended. 3 semester hours credit.

*HI 487 The American Revolution 1763-1787 UG*

The topics to be considered in this course are the background and causes of the American Revolution, the military, social, political and diplomatic aspects of the Revolution, the government under the Articles of Confederation and the problems engendered by the attainment of political independence. 3 semester hours credit.

*HI 488 United States History: The Colonial Period 1607-1763 UG*

The following topics are covered: the settlement and growth of the English colonies in America; England's colonial policies; economic and institutional development in the provincial period; the wars with the Indians; the rivalry with the French in America. 3 semester hours credit.

*HI 489 United States History: The Early National Period UG*

The course of United States history from the establishment of the republic to the election of Andrew Jackson will be studied. 3 semester hours credit.

*HI 490 Jacksonian Democracy and the Coming of the Civil War UG*

The election of Andrew Jackson and the "rise of the common man," the Whig-democrat rivalry, the Texas question, Manifest Destiny, the rise of abolitionism, the events leading to the outbreak of the Civil War. 3 semester hours credit.

*HI 491 English History To 1603 UG*

The course of English history from the Roman time to the accession of the Stuart dynasty will be studied. 3 semester hours credit.

*HI 494 United States History 1865-1900 UG*

Beginning with the Reconstruction period this course traces the



economic, political, and diplomatic history to the end of the nineteenth century. 3 semester hours credit.

*HI 501 Seminar in Historical Methodology G*

The basic methods of historical research and historical writings and the proper use of primary and secondary sources, bibliography; documentations, and annotation will be studied. Varieties, analysis and evaluation of source materials and construction of narrative will be considered. 3 semester hours credit.

*HI 371 Comparative Government*

A comparative study of the origin and development of governments, parties, political ideologies, and social policies in the United Kingdom, the U.S.S.R., France, and Japan. Prerequisite: HI 271 and 272 or equivalent courses. 3 semester hours credit.

*HI 372 American Government: State and Local Government*

This course considers the development, structure, and function of state government in the United States. The relation between the state, local, and national government will be considered. Government at the local level with emphasis on Massachusetts experience and some emphasis on town and city management will be studied. 3 semester hours credit.

*HI 435 The French Revolution and the Napoleonic Era*

A survey of life under the Old Regime, the upheaval of the 1790's, the history of the Empire, and their effects upon the rest of Europe.

DEPARTMENT OF PSYCHOLOGY

Professor Jordan D. Fiore, Acting Chairman

Professor: Iva V. Lutz

Associate Professor: Elizabeth Hollis

Assistant Professors: Louis Schippers, James Rudolph Scroggs

Visiting Lecturers: Margaret Rose Brayton, Leonel Joseph Neron

*PY 200 General Psychology U*

This is an introductory course planned to acquaint the student with

the techniques of modern psychology, the structure of behavior, conditions and theories of learning, and theories of personality development. 3 semester hours credit.

*PY 222 Psychology of Learning UG*

Emphasis will be placed on the theoretical aspects of psychological principles relating to the learning process. Theories of learning will be examined in relation to the learning situation and the teacher. Prerequisite: PY 200 (General Psychology U). 3 semester hours credit.

*PY 224 Child Growth and Development U*

A study will be made of the growth and development of the child from birth to pre-adolescence. Attention will be focused on biological, psychological, and social factors as well as moral forces which influence child behavior. Prerequisite: PY 200 (General Psychology U). 3 semester hours credit.

*PY 226 Adolescent Psychology U*

The purpose of this course is to provide a better understanding of the pre-adolescent. A study will be made of the major theories of adolescence. Physical, mental, moral, emotional, personality, and social aspects will be considered. Prerequisite: PY 200 (General Psychology U). 3 semester hours credit.

*PY 227 Psychology of Exceptional Children UG*

Emphasis will be on identification and understanding of the growth and development of exceptional children. Special techniques considered appropriate to the needs of such children will be treated. Emphasis will also be placed on the contribution the classroom teacher can make to the education and welfare of the mentally, emotionally, and physically handicapped child as well as the academically talented. Prerequisite: PY 200 (General Psychology U). 3 semester hours credit.

*PY 228 Sub-Normal Psychology UG*

The etiological and psychological factors involved in mental retardation and in other deviations affecting the intellectual and behavioristic development of children will be stressed. The education and training as well as educational and occupational potential will receive equal consideration. Prerequisite: PY 200 (General Psychology U). 3 semester hours credit.

*PY 229 Abnormal Psychology UG*

A systematic study of behavior pathology with special reference to



the psychopathology of physical illness, neuroses, psychosis, personality disorders, addiction, and acute and chronic brain disorders. Emphasis will also be placed upon etiology, symptomology, prognosis and prevention. Prerequisite: PY 200 (General Psychology U). 3 semester hours credit.

*PY 230 Social Psychology UG*

This course is designed to acquaint the student with the theories of social psychologists, their research methods, and their empirical knowledge in such areas as the socialization process, personality and culture, person perception, group dynamics, and attitude formation and change, and to apply this discipline to such contemporary social problems as prejudice, urban unrest and the new morality. Prerequisite: PY 200 (General Psychology U). 3 semester hours credit.

DEPARTMENT OF SOCIOLOGY

Professor Joseph Graessle Moore, Chairman

Associate Professor: Maude Clay Little Greene.

Instructor: Abraham Vazhayil Thomas.

Visiting Lecturers: Charles William Gaughan, Philip Olmer.

*SO 280 An Introduction to Sociological Analysis UG*

A comparative study of group behavior which is basic to all societies, this course will give attention to all the major social institutions that comprise the social structure. Empirical studies of small, simple societies, as well as material from large complex societies, will be utilized. 3 semester hours credit.

*SO 301 Social Stratification UG*

The ranking system by which all societies evaluate their members will be studied comparatively. Special attention will be given to class, status, and minority groupings, occupational structure, and social mobility within the United States. Prerequisite: SO 280 (An Introduction to Sociological Analysis UG). 3 semester hours credit.

*SO 303 The Family UG*

This course will focus on a comparative study of family structure in various societies. Theories of family life will be explored. Special emphasis will be given to the modern American family -- its functions, problems, and trends. Prerequisite: SO 280 (An Introduction to Sociological Analysis UG). 3 semester hours credit.

### *SO 306 Urban Communities UG*

The development of urban communities will be traced. Emphasis will be on the modern city, its ecology, its areas of conflict--minority groups, its social organization, community planning, and redevelopment. Prerequisite: SO 280 (An Introduction to Sociological Analysis UG). 3 semester hours credit.

### *SO 308 Introduction to Sociological Theory and Research Methods UG*

Current sociological theories will be studied and their application to scientific research will be evaluated. Students will have the opportunity to participate in a research project employing sociological theories, methods, and techniques. Prerequisite: SO 280 (An Introduction to Sociological Analysis UG). 3 semester hours credit.

### *SO.411 Types of Asocial Personalities I UG*

This course is intended for the mature undergraduate or graduate student. It uses the clinical method of instruction, having available, live case material. Topics covered include the development of asocial personalities, especially the alcoholic, drug addict, anti-social retarded, and sexually deviated. Prerequisite: SO 280 (An Introduction to Sociological Analysis U). 3 semester hours credit.

### *SO 412 Types of Asocial Personalities II UG*

The intent and method is the same as in SO 411, Asocial Personalities I. The varieties of psychoses, assaultive epilepsies, and organic brain damages are considered. Current methods of detection and treatment are outlined. Prerequisite: (SO 411 Types of Asocial Personalities I UG). 3 semester hours credit.

### *SO 413 Personal and Social Disorganization I UG*

A two semester course considering theories and research studies in psychology, criminology, and psychiatry as they apply toward an understanding of individual and social disorder. Prerequisite: SO 280 (An Introduction to Sociological Analysis U). 3 semester hours credit.

### *SO 414 Personal and Social Disorganization II UG*

A two semester course considering theories and research studies in psychology, criminology, and psychiatry as they apply toward an understanding of individual and social disorder. SO 413 (Personal and Social Disorganization I UG). 3 semester hours credit.



*Department of Biological Sciences*  
*BI 410 Marine Biology UG*

*Addendum*

A study is made of the marine ecosystem. Emphasis is placed on factors involved in growth, diversity, and distribution of populations occupying the natural marine habitats of the Eastern Atlantic Coast. Prerequisites BI 110 (General Botany U); BI 120 (General Zoology U); or permission of the Instructor. 3 semester hours credit.

*Department of Education*

*Addendum*

*ED 570 Federal Assistance to American Education G*

This course is designed to familiarize teachers, school administrators, and other educators with the government's expanding role in education. While an historical study of federal aid dating back to Colonial times will be discussed, course emphasis will be placed on contemporary developments. The goals, content, federal priorities, and evaluation of federal-aid-to-education programs will be studied with particular emphasis on implications to schoolmen. Special attention will be devoted to the various titles of the Elementary and Secondary Education Act of 1965 and its subsequent revisions and amendments.





